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UNIVERSITY OF ALBERTA

BRITISH INVESTMENT IN MEXICAN MINING, 1824-1828

BY

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A THESIS

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ABSTRACT

The present work is a reevaluation of British investment in Mexican mining ventures 1824-1828. Both British and Mexican historiography have virtually ignored this first stage of British investment in Mexico. From the standpoint of Mexican historiography, the British companies have been overlooked by historians because they were unable to bring Mexican silver production to colonial levels. From the standpoint of British historiography, the mining concerns have been portrayed as commercially foolish ventures: not only were the companies destined for areas lacking necessary infrastructure, they also contributed to a stock market crash in Britain in 1825 as their shares appeared to be worthless.

The majority of Anglo-Mexican mining ventures, however, appear to be different than most joint stock companies formed in Britain 1824-1825. They were destined for a country which had a long tradition of silver mining and were founded by men of high repute in the British financial community who sought employees with mining experience. Many of the companies tried, albeit unsuccessfully, to improve on existing silver mining techniques and demonstrated a commitment to long term investment. Most of the mining ventures were viable commercial initiatives. The reality, however, was that all

of the companies suffered from a severe capital shortage as a result of the crash of 1825 which lent itself to their eventual failure.

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HISTORICAL INTERPRETATIONS OF ANGLO-MEXICAN MINING INITIATIVES

The role of British private investment in Latin America during the early nineteenth century is one topic that has received limited examination by historians although the period marked "the real beginnings of British private investments in independent and semi-independent foreign nations."[1] The neglect afforded to this initial stage is curious, particularly since Latin America represented "one of the most important outlets for British trade and investment throughout the nineteenth century", while maintaining a "relative importance until the Second World War."[2] Historians have ignored this first episode in the economic relationship between Britain and the young states even though Latin America became the focus of a speculative boom which culminated in one of the worst financial disasters in nineteenth century British history.

British capital exports to Latin America were meagre prior to 1820, although some British merchants had participated in contraband trade with the Spanish colonies

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[1] J. Fred Rippy, *British Investment in Latin America* (Minneapolis: 1959), p. 17.

[2] D.C.M. Platt, *Finance, Trade, and Politics in British Foreign Policy, 1815-1914* (Oxford: 1968), p.308.

through the West Indies during the eighteenth century.[3] Furthermore, British foreign lending and investment after 1815 flowed "mainly to Europe, to Britain's allies from the Napoleonic wars, and even to the defeated France"[4]. By the 1820s the attention of both British financiers and investors began to concentrate on Latin America to such an extent that it has been argued that capital exports reached a level that was not matched until after the 1850s.[5] The eventual crash on the London Stock Exchange in December 1825 appears to have perplexed British contemporaries just as much as historians: most have blamed the seemingly precarious nature of the investment on the fledgling Latin American nations.

Undeniably , the events and conditions leading up the crash of 1825 have contributed to the understanding of the speculative boom. A rising level of liquidity as well as a healthy British economy facilitated opportunities for investment at home and abroad. British investors were only too willing to accommodate the Latin American nations when their agents appeared in London seeking loans and invest-

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[3] D.C.M. Platt, *Latin America and the British Trade* (London: 1972), pp.24-61.

[4] P.P. Cottrell, *British Overseas Investment in the Nineteenth Century* (London: 1975), p.19.

[5] *Ibid*, p.18.

ment.[6] Joint stock companies began to be formed at an remarkable rate - many of them established specifically for mining ventures, while others created for operations in Latin America were devoted to far more dubious schemes.[7] Unscrupulous promoters, stock jobbers, and a gullible public upheld the myth that the superior "Cornish Science", in addition to an application of the steam engine, would bring forth the precious metals that had been previously hidden behind the Spanish and Portuguese version of the

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[6] When the Colombian vice president appeared in London seeking a loan no fewer than two hundred creditors "were glad to make his acquaintance." Leland Jenks, *The Migration of British Capital*, (London, 1927), p.46.

[7] In 1824, 624 joint stock companies were formed for operations in Britain and abroad, the majority of which were intended for works in Latin America. Rippy states that there were seventy-six mining companies formed from 1823 through 1825. Rippy, p.18. According to Jenks almost eighteen million pounds sterling had been invested by the British in Latin America and of this six million pounds had gone for mining ventures. Jenks, p.357. In *The Report of the Select Committee on Joint Stock Companies* British Sessional Papers, House of Commons, Vol. 7, 1844, three types of companies were described:

1) Those which, being faulty in their structure, inasmuch as they are founded on unsound calculations, cannot succeed by any possibility.

2) Those which, are so ill constituted as to render it probable that the miscarriages or failures incident to mismanagement will attend them.

3) those which are faulty, or fraudulent in their object, being started for no other purpose than to create shares for the purpose of jobbing in them, or to create, under pretense of carrying on a legitimate business, the oppotunity and means of raising funds to be shared by the adventurers who start the company. *The Report of the Select Committee on Joint Stock Companies, 1844*, p.356.

"iron curtain."[8] Unfortunately, many of these hopes proved unfounded and stock prices began to tumble late in 1825, contributing in a major way to the eventual collapse of forty-three country banks in December of that year. The immediate result was a shortage of liquidity and a commercial crisis in Britain that was characterized by business failures and widespread unemployment. Latin American investments became the scapegoat for Britain's economic woes and the eventual result was a total loss of British confidence in such endeavours that did not recover until the mid-nineteenth century.

British interest in investment and in political events in Latin America was well reflected in the literature available to contemporaries throughout the 1820s. Numerous prospectuses of joint stock companies appeared during 1824-25, and *The Quarterly Review* carried an article outlining the past and potential future wealth of Mexican mines in 1823.[9] British newspapers, such as the *The Times* and *The Morning Chronicle* closely followed the political events occurring in Latin America[10] and were equally methodical in

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[8] Rippy, p.23.

[9] *The Quarterly Review*, Vol. XXX, 1823.

[10] Both newspapers were primarily concerned with the type of governments the new republics were adopting as well as the intrusion of other states into Latin American affairs.

describing the circumstances of the British economy during the years 1824-25 - even going so far as to offer the British investor an occasional warning of the possible dangers of the "mania".[11] The *Annual Register*, in its account of the events of 1824 noted "the abundance of capital... [devoted]...to the formation of numerous joint stock companies.[12] For *The Annual Register*, "the rage for speculation" began as early as January 1824 with the introduction of three companies to the British public intended for mining in Mexico. Indeed, it stressed that "the mines of Mexico was a phrase which suggested to every imagination unbounded wealth."[13] While acknowledging the formation of other joint stock companies committed to domestic undertakings throughout 1824, it linked the fascination with "the unbounded wealth" to the creation of other mining companies for Chile, Brazil, Peru and the Provinces of Rio de la Plata. The preoccupation with new joint stock companies had become so widespread that *The Monthly Repository*, a British journal primarily concerned with theological issues, began to list share prices in

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[11] For example see *The Times*, 4 Feb., 1825 and *The Morning Chronicle*, 31 January, 1825. *The Quarterly Review* warned the British public against mining investments in March 1825.

[12] *The Annual Register* Vol.LXVI, 1825.

[13] *Ibid.*

February of that year.[14]

Following the end of the speculative boom in late 1825 and during the ensuing financial crisis in Britain, Latin American investments became the focal point for those wishing to place blame for British economic woes. The situation was exacerbated by the inability of the majority of Latin American republics to make remittances on loans they had contracted in London and by the failure of the surviving companies to pay dividends. In some instances, mining companies continued to make calls on their shares, while in specific cases they were forced to expand on their original projected capitalization.[15] Although Henry George Ward, the British *chargé d'affaires* in Mexico, contended that opportunities continued to exist to acquire profits from the Mexican mines[16], others, feeling the brunt of British public opinion, were forced to withhold any statements regarding commercial ventures in Latin America.

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[14] *The Monthly Repository*, Vol.XX, No. 230 (February, 1825), p.119.

[15] When joint stock companies were formed they would set the nominal capital that was thought to be needed to make that undertaking profitable and then divide that nominal figure into shares. To subscribe for a £100 share in a company a five pound deposit was usually required. As the company needed more liquidity for operations and fixed investments they would make "calls" for the remaining capital owed.

[16] H.G. Ward, *Mexico*, (London: 1829) Vol.II, p.539.

For example, commissioner Marc Beaufoy, in his *Mexican Illustrations* (published 1828) "had intended to devote some twenty or thirty pages to the illustration" of Mexican silver mining[17] but did not. His primary reason for eliminating that chapter was due to "so much feverish irritation in the public mind relative to the subject..., even after it had been in the printers hands."[18]

The existence of fraudulent companies and others which proposed downright ludicrous schemes in Latin America during the speculative boom only added fuel to the arguments against Latin American investments. British opinion criticized an injudicious public, the self-serving promotions of both jobbers and brokers, as well as investment tainted by any Latin American association. The Guanajuato Mining Association, for example, was supposedly intended to exploit one of the richest mining regions in Mexico. The company, however, never appeared to make any sustained effort to secure mining contracts in Mexico and *The Times* discovered that a person calling himself the "secretary" refused to disclose any information concerning the names of directors, yet collected payments and sold shares at a high

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[17] Marc Beaufoy, *Mexican Illustrations* (London: 1828), p. 283. Beaufoy was a commissioner for the Tlalpujahua Mining Association.

[18] *Ibid.*

premium.[19]

Nineteenth century traveller Captain Francis Bond Head's assessment of a failed churning company formed "to send milkmaids to the pampas...[to milk]...a set of lawless creatures...[when]...the natives preferred oil" undoubtedly contributed to the disdain felt by the British public towards Latin America.[20] By 1828, *The Banker's Circular* argued that "the most intelligent and judicious people...[were]... unwilling to invest in Latin American ventures."[21]

The rather limited examination of the speculative boom and Latin American investments during the period by British historians has tended to echo the opinions of British contemporaries. Most works note that shares of mining companies reached incredible heights by the end of 1824. Soon after, companies were formed to take advantage of the profits to be made on the Foreign Stock Exchange - often achieved by manipulating the aura of Hispanic wealth as a method of attracting investors. For that reason it has been deduced by scholars that mining ventures became the focal

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[19] *The Times*, 4 July 1825.

[20] Sir Francis Bond Head, *Rough Notes*, (London: 1846). This example also became a favorite of historians. See Rippy, p.18 and William Smart, *Economic Annals of the Nineteenth Century, 1821-1830* (New York: 1964), Vol.II, p.329.

[21] *The Banker's Circular*, Vol. 4, (July 1828).

point of "the rage for speculation." Few historians would deny that an imprudent public and unprincipled jobbers and brokers were equally culpable for their actions during the speculative boom. However, these same historians conclude that the majority of mining investments had little foundation besides myth and subsequently were as suspect as the other investments in Latin America.

Economic historians Thomas Tooke and William Newmarch agreed with the explanation of the speculative boom and the succeeding "mania" published by *The Annual Register*. The mining companies, they noted, offered "the most flaming accounts" of prospective wealth and ultimately contributed to the "feverish state of the public mind."[22] They asserted that the "mania" of the British public "reached its height in the first four months of 1825".[23] At that time the shares of some companies, such as the Real del Monte Mining Association, reached an upper level of a premium of £1200 sterling, only to contract due to a recession in the prices of commodities.[24] The unrealistic nature of the mining investments resulted in almost a total loss of the capital paid by investors in the years that followed.

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[22] Thomas Tooke and William Newmarch, *A History of Prices* (London: 1928), Vol.II, p.150.

[23] *Ibid.*

[24] *Ibid.*

William Smart was equally critical of all the joint stock companies created during the height of the "mania". He acknowledged just how widespread and absurd the investments had become during 1825. For example, William Huskisson and Lords Liverpool and Landsdowne were managing partners in a company proposed "for the cultivation of mulberry trees and the propagation of the silkworm in Great Britain and Ireland" which indicated how far reaching the "mania" had become[25] and demonstrated that ridiculous investments were not completely confined to Latin America. For Smart, however, the lack of actual capital called up by the mining companies and the character of the companies themselves was of far greater significance. Investors regularly manipulated and speculated in mining shares before further calls were made. With respect to the eventual operations of the mining companies, "with one or two exceptions ...[they]...simply absorbed the capital, and, instead of sending precious metals up the shaft, swallowed the money subscribed, and closed down."[26]

Surprisingly, the shares of some of the mining companies experienced fits of revival and speculation following the collapse of the speculative boom. Without

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[25] William Smart, *Economic Annals of the Nineteenth Century 1821-1830* (New York: 1964), p.297.

[26] *Ibid.*

distinguishing between the types of mining companies nor the countries of operation, economic historians A.D. Gayer, W.W. Rostow and A.J. Schwartz observed the depression in mining shares by August of 1825. Little basis existed for these companies and the high prices were maintained by false hopes. These remaining companies continued to call up capital as the occasional favourable report from Latin America caused their shares to experience shorter cycles of revitalization.[27]

Historians J. Fred Rippy and Leland H. Jenks also criticized the viability of the original investments in Latin America.[28] Both reasoned that the majority of the ventures were commercially ill-conceived - primarily because there were misconceptions on the part of those who both formed and promoted the companies. Moreover, they deduced that attributes of Latin American nations precluded any opportunity for success for the infant companies. Rippy stressed the lack of necessary infrastructure inherent to all of the Latin American states needed to make the investments (particularly mining investments) a reality. Jenks went much further in his assessment and actually

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[27] A.D. Gayer, W.W. Rostow and A.J. Schwartz, *The Growth and Fluctuation of the British Economy, 1790-1850* (Oxford: 1953), Vol.I, pp. 432, 433.

[28] Jenks, pp. 55, 56; Rippy, pp. 23-25.

clouded the nature of the Latin American investments as a whole as he failed to distinguish comprehensively between the Latin American States. *The Migration of British Capital to 1875* recognized the deceptive role played by the overvalued mining shares in the speculative boom, yet reasoned that the political turbulence in Latin America had as much to do with the deficiency of capital returns as anything else.[29] As well as criticizing the majority of joint stock companies, he maintained that the loans to Latin America were equally questionable for the "backward states" were too unstable and therefore did not possess the ability to make required remittances.

Certainly the historians cited above have constructed arguments that remain valid and each has yet to be constructively challenged on the merit of their scholarship. Collectively, they deserve criticism, for they all failed to distinguish the individual traits the Latin American states had developed by the 1820s. The folly of making such generalizations is that all of these states had evolved distinctive societies, cultures and economic foundations that affected their development once independence was achieved. Ultimately these traditions had a bearing on the

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[29] Jenks, pp. 55-56. He also believed that there was little basis for mining companies and hence the shares were not only overvalued but worthless.

companies formed during the speculative boom and need to be taken into consideration in order to develop a better understanding of the period.

Mexico and Mexican mining ventures, for example, have been included within that generalization. Simply put, Mexico was similar to the rest of Latin America in that its decision to separate from Spain partially related to its politically and economically displaced creole elite.[30] It is also true that that there were mining companies formed for work in Mexico that were commercially foolish and, as was the case of the Guanajuato company, fraudulent.[31] Furthermore, Mexico negotiated a loan for £3.2 million with Goldschmidt and Co. in 1824, while a second loan for £3.2 million was negotiated with Barclay Herring and Co. in 1825. Mexico received less than half of these sums and may have contributed to the collapse of Goldschmidt in 1826 because of its inability to make payments.[32]

Without downplaying the significance of social, cultural and economic factors, Mexico differed from the rest of Latin America as far as silver production was

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[30] Creole refers to American born Spaniards.

[31] Ward, Vol. II, p. 493, p. 437; Henry English, *Guide to Companies*, Part II (London: 1826).

[32] John Lynch, *The Spanish American Revolutions* (New York: 1983), p. 327.

concerned. By 1804 the region accounted for sixty-seven per cent of all silver produced in America. From 1570 to the 1630s, Mexico was second only to Peru in bullion production.[33] By the eighteenth century Mexico became "the world's chief producer of silver "[34] and more important for Mexico was up until the 1870s, silver represented over 70 per cent of its exports for over three centuries. In 1702, Mexico produced five million pesos worth of silver; thereafter, until 1770, there was an average annual increase to twelve million pesos. In the last thirty years of the century, the average increased to eighteen million pesos annually. By 1804, Mexico produced twenty-seven million pesos worth of silver."[35]

Unfortunately, the Mexican mining sector was brought to a standstill during the turbulent period of Mexican independence. When the Mexican government surveyed the economic damage of the Wars of Independence, it centred its attention on the mining industry, an understandable preoccupation given the industry's importance as a source

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[33] D.A. Brading, "Mexican Silver Mining in Eighteenth Century Zacatecas," *H.A.H.R.*, Vol. 50, no.2 (1970), p.665.

[34] *Ibid.*

[35] *Ibid.* At that time £1 = 5 pesos; 1 peso = 1 U.S. dollar; 1 mark = 8 1/2 pesos; and 1 peso = 8 reales.

of government revenue throughout its colonial past.[36] Apart from agriculture, mining undoubtedly suffered more than any other part of the Mexican economy.[37] In the area of Guanajuato, - traditionally one of the most productive mining centres - output "declined from 617,444 marks of silver in 1808 to 73,983 in 1821."[38]

In Latin American historiography, the British mining ventures have received a slightly less than favourable account. The thread that binds Mexican and British historiography together is that Latin American historians often smugly conclude that British companies had no understanding of what was required to bring silver production to pre-independence levels. The haughty British armed with their "Cornish science" and steam engine were soundly defeated by their notorious lack of planning and horrendous mistakes they made during the first four years of the

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[36] Lucas Alamán, who had acted as *ministro de relaciones* during the 1820s and was prominent politically in Mexico during the second quarter of the nineteenth century stated: the mines of the nation are the front of the true riches of our country. The necessary growth of agriculture and industry will follow the growth of the mining industry. the single most important thing the government must do is to encourage the investment of capital from foreign sources. Lucas Alamán, *Documentos Diversos*, Vol.I, p. 92.

[37] The other major sectors were transportation, trade, manufacturing and cottage industries.

[38] N. Ray Gilmore, "Henry George Ward, British Publicist for Mexican Mines", *Pacific Historical Review*, Vol. 32 (1963), pp. 37-38.

Mexican Republic. This prevalent view has been influenced by two factors: firstly, by the failure of the British companies to turn a profit; and secondly by the fact that silver mintage never reached the zenith of its colonial status.

Few historians would deny the effects that the wars of independence had on the silver industry and ultimately the Mexican economy. Mexican historian Hira de Gortari Rabiela has recently argued that in the Bajío, known as the richest mining centre of Guanajuato, fighting between royalists and insurgents was the harshest. The damage inflicted on this core region completely disrupted the mining industry.[39] While most historians argue that the wars of independence caused a migration of much needed peninsular capital for mining investments, Harry Cross hypothesized that the withdrawal of Spanish merchant capital from mining was a result of what was perceived as unsafe investments: peninsular Spaniards may have withheld their capital because they feared the destruction Mexico's lower classes

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[39] Hira de Gortari Rabiela, "La minería durante la de independencia y los primeros años del Mexico independente, 1810-1824," in Jaime Rodríquez O.(ed.), *The Independence of Mexico and the Creation of the New Nation* (Los Angeles: 1989), pp. 129-161.

may have brought their investments.[40]

By the 1820s, Mexican mine owners found their operations in a state of decay - the mines having been neglected for want of capital. These proprietors, many members of the Mexican elite, participated in political affairs and because of their political positions it should be of no surprise that Mexican laws that had previously restricted both mining investment and profit were rescinded after independence.[41] Most of the mine owners actively sought investment in Britain and some actually helped create British mining companies. Supposedly lucrative leases were offered to the new British companies for mines that had contributed to the greatest fortunes of the eighteenth century. However, when it became evident that silver production and the mining companies were faltering, the mining elite were at a loss to explain why.

Lucas Alamán, a member of both the mining elite and Mexican government, was the man most responsible for

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[40] Harry Cross, "The Mining economy of Zacatecas, Mexico in the Nineteenth Century", Ph.D. dissertation, University of California, Berkeley, 1976. Cross proved that the region of Zacatecas enjoyed a modest recovery throughout Mexico's upheaval. In addition, he is one of the few historians who gave the British companies credit for their introduction of sound accounting methods and technology.

[41] During the colonial era miners were taxed for the silver ore they excavated, its assay and mintage. See Chapter II below.

bringing British mining investment to Mexico. Alamán was a major figure in Mexican political affairs during the second quarter of the nineteenth century. He went to Europe in the 1820s and his promotional efforts led to the birth of the United Mexican Mining Association of which he was one of the directors. Although Alamán maintained that the silver mining industry continued to be the engine of economic development in Mexico, he blamed the misfortune of the British companies on mine owners who had falsified reports to make their mines appear more profitable in the past than they had been.[42]

Latin American historian Tulio Halperín Donghi agreed that the shortage of capital contributed to the neglect of the mines. Although he conceded the dedicated efforts of some mining companies and acknowledged a modest recovery of silver mining, he believed that the British companies "had met with even less success" pumping water out of the lower levels of the mines than their eighteenth century counterparts.[43] Thus, for Halperín Donghi, the fixed capital costs incurred by the companies were far too much of a burden to

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[42] Stanley Green, *The Mexican Republic: The First Decade,1823-1832*, (Pittsburgh, 1987) p.132

[43] Tulio Halperín Donghi, "Economy and Society in Post Independence Spanish America," in Leslie Bethel (ed.), *The Cambridge History of Latin America* (Cambridge: 1985), Vol.III, p. 310.

make mining operations profitable.

One of the few historians to examine a specific British company was Robert Randall in his work *Real del Monte*. Randall downplayed the political instability that existed in Mexico as a factor in the company's eventual failure. Instead, he accentuated the distance between the company's home office and its Mexican operations as well as the lack of discretion on the part of the managers in Mexico. Faced with such distances, these managers were often forced to act independently and their inexperience was shown by their inability to cope with labor problems, difficulties in supply, and critical errors relating to the concentration of mining operations."

Other Mexican historians, while almost totally ignoring the existence of the British companies, are at a loss to explain why an independent Mexico failed to rejuvenate its economy. Although Mexican historiography is still in its nascent stages regarding the government of president Guadalupe Victoria (1824-1828)[45] historians grappling for explanations have tended to magnify certain

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" Stephen Niblo and Laurens B. Perry, "Recent Additions to Nineteenth Century Mexican Historiography" *L.A.R.R.*, Vol. XIII, No.3, (1978), p.20.

[45] *Ibid*. Most historical works devoted to Mexico during the early part of the nineteenth century have concentrated on the independence period or the empire of Agustín de Iturbide.

factors and nullify others. Mexicanist John Coatsworth, for example, argued that "the continued depression in the nineteenth century was largely the result of an unanticipated cost of independence: the loss of assured supplies of mercury...that Spain had provided."[46]

Barbara Tennenbaum and Jaime Rodríguez agreed the problems of the early years of the Mexican republic had their roots in the independence period. According to Tennenbaum, one of the goals of the creole elite was to eliminate taxation for the benefit of their own economic interests. Without a firm financial base any central government was doomed to fail and one of the only reasons Victoria's government survived was because of the loans contracted in London. Rodríguez agreed with his British counterparts in that he linked Mexico's political instability to its apparent lack of economic development.[47]

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[46] John Coatsworth, "Mexico's Nineteenth Century Crisis", *American Historical Review*, Vol.83, no.1 (February, 1978), p.86. The loss of assured supplies of mercury does not appear to be a factor during the first four years of the Republic. A constant supply of mercury was received from British merchants at 60 pesos per quintal and that price did not rise until 1830 when the London Branch of the House of Rothschilds obtained a world monopoly. They raised the price to 140 pesos per quintal. John Phillips, "Descriptive Notice of the Silver Mines and Amalgamation Process of Mexico," *The Railway Register and Record of Public Enterprise*," Vol. III (April: 1846), p.289.

[47] See Jaime Rodríguez O. "Mexico's First Foreign Loans," in Jaime Rodríguez O. (ed.), *Independence*, pp.215-236 and Barbara Tennenbaum "Taxation and Tyranny: Public

While it is true that trends developed during the independence period affected Mexico's political future in the nineteenth century, they do not adequately explain why silver mining faltered nor why the British companies were unable to make their operations profitable. During the independence era, many of the mine owners became concerned with regional issues and independence allowed them to consolidate their economic and political power on a regional level. Once the Republic was established they maintained those interests and massive amounts of British capital brought to their regions facilitated economic recovery.

Similarly, the silver industry had been firmly established in Mexico by the nineteenth century. While both Mexican and British historians have been quick to chastise the British mining interests, the majority have failed to take into account the mining tradition that had developed and how it affected those interests. The success of this industry relied on commercial relationships as much as it did on the technical peculiarities of Mexican silver excavation and processing. These were all factors that the British companies were forced to recognize and had attempted to improve.

Furthermore, from the context of the speculative boom,

Finance during the Iturbide Regime, 1821-1823" in Ibid, pp. 201-214.

the Mexican mining interests need to be reassessed. The three Mexican mine companies that first appeared in 1824 were able to survive the financial crisis of 1826. In fact, out of twenty-six mining companies that were formed during the years 1823-1825 only seven survived after 1835 and out of these five were Mexican.[**] Closer examination reveals that several of the Mexican companies were formed by British men of high standing in their financial community who were unlikely to mislead the public because business connections in Britain at this time depended on one's reputation. Some had previous experience with mining and were aware of the idiosyncrasies of the Mexican silver industry and actively sought employees that had previous mining experience. Others had established commercial interests earlier in Latin America and were cognizant of both the political and fiscal constaints that had previously affected the Mexican silver industry. Yet the reality remains that the majority of the companies formed by these men were similar to other joint stock companies in that they never were able to pay dividends to their investors.

The present work seeks to define some of the factors that affected the apparent lack of success of the British mining interests in Mexico during the years 1824-1828. In

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[**] Rippy, p.18

doing so it will show why these companies need to be reevaluated from both the standpoint of British and Mexican historiography. By tracing the commercial development of the Mexican silver industry and its contribution to the wealth of the mining elite it is possible to understand why the silver industry declined during the independence era and why British capital was sought so actively. Moreover, it will be shown that although some of the British mining companies were sound inasmuch as they were dedicated to long range returns to investors, their operations were affected by considerations in Britain and by conditions in Mexico. And lastly, the effects and changes brought to Mexico by these British mining companies will be examined to determine the success and realism of these companies.

MEXICO'S MINING TRADITION

Undeniably conservative and acutely aware of their Spanish heritage, many of the Mexican elite owed a great part of their economic and social positions to the wealth they had accumulated from the silver industry. As miners[1] they depended on the Spanish Crown for tax concessions, assured supplies of mercury and gunpowder, as well as the protection Spain's armies afforded them for the success of their industry. Although many of the mining elite[2] had grievances with the Spanish crown by the beginning of the nineteenth century, their eventual decision to support separation from Spain was not an easy one and reflected the complexity of Mexican independence.

Creole-peninsular distinctions cannot be clearly made concerning the people who dominated New Spain's business of silver mining. During the eighteenth century, for example, Mexican creoles had a tendency to invest in land while

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[1] For the purposes of this work miners refer to owners of mines or independent refiners.

[2] The "mining elite" refers to those miners who had made some of the most successful investments of the eighteenth century. Many were millionares and some such as the Marqués del Apartado, the Marqués San Juan de Rayas, the Conde de Regla, and Conde de Valenciana were awarded their eighteenth century titles of nobility because of their successful investments in silver mining. Doris Ladd, *The Mexican Nobility at Independence* (Austin: 1976), pp. 28-29.

peninsular Spaniards invested in commerce and mining.[3] By the nineteenth century these divisions were not so apparent for many *gachupines* (peninsular Spaniards) of the great silver enterprises had firmly established roots in Mexico through familial and business links with creoles.[4] At the same time the prosperity of their industry continued to depend on peninsular merchant capital for investment to the mines.

Moreover, the attitude of the mining elite during the era of Mexican independence (1810-1821) toward the Spanish Crown and Mexican society was similar to that of the less fortunate creoles who had invested in mining and agriculture. Many of the mining elite desired greater control over their economic interests and some, such as the

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[3] D.A. Brading *Miners and Merchants in Bourbon Mexico*, (Cambridge: 1971), pp.169-207. Typically the daughters of peninsular Spaniards in New Spain who had invested in mining or commerce would marry their cousins from the peninsula who usually inherited their father-in-law's business. *Ibid.*, pp. 303-328.

[4] Their sons were creoles and many of the mining elite also invested in land as a "safe" investment and to complement their industry. As Doris Ladd has pointed out, "Great wealth was so organized as to maximize family relations and minmize creole and peninsular distinctions. It was focused on Mexican resources, and it was produced by Mexican labor, Mexican technology, and Mexican capital. As in all great capitalist endeavors great enterprises promised great returns. And fortunes once made could be easily rapidly spent, so that the chances that great wealth could be sustained were slim unless moneys were wisely distributed among high risk and firmly secure investments." Ladd, p.129.

Marques del Apartado[5] and Lucas Alamán, favoured a Spanish commonwealth in which Mexico would possess a similar status with Spain to that which Canada enjoyed with Great Britain.[6] Like many creole elites throughout Latin America, the members of the mining elite were not social revolutionaries. They demanded social order and in this way they garnered the support of the less affluent miners because the preservation of social stability was equated with a consistent supply of labour[7]. Some, such as the Marqués San Juan de Rayas[8], were originally sympathetic to the lower class insurrection of Father Miguel Hidalgo y Costilla, but quickly lost faith as the rebellion proceeded. The fact that the insurgents made no distinction between creoles or peninsular Spaniards when they destroyed *haciendas* and killed viceregal authorities and *hacendados* only exacerbated fears of Mexico's lower classes.[9]

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[5] The Marques del Apartado, Jose Mariano de Fagagoaga's family was prominent the silver industry in New Spain for most of the eighteenth century.

[6] Both were creoles. Ladd, p.129.

[7] Walter Howe, *The Mining Guild of New Spain and Its Tribunal General, 1770-1821* (Cambridge: 1949), pp. 394, 395.

[8] The Rayas fortune was largely derived from the Rayas mine in the region of Guanajuato during the eighteenth century.

[9] *Haciendas* are landed estates. *Hacendados* are the owners of those landed estates.

The primary concern of the mining elite, however, was their own enterprises. The eighteenth century Bourbon reforms of King Charles III had helped to create their wealth, as one of the key objectives of the reforms was aimed at the revival of the silver industry. By the early nineteenth century, however, the mining elite no longer believed that their economic interests were being served by their relationship with Spain. At this time massive amounts of peninsular capital were withdrawn, which had a devastating effect on the mining industry.[10] Since many of the elite had travelled in Europe they realized that Britain represented a possible source of foreign investment, and once independence was achieved in 1821 they actively pursued British investment capital for their mines.[11]

Yet this does not explain why the silver industry did not fully recover after 1810. After all, as New Spain's most prosperous miners, the mining elite had played a crucial role in the development of the industry. As well,

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[10] The turbulence of the independence period may have caused the withdrawal of capital because of what was perceived to be unsafe investments. Cross, p. 20. H.G. Ward estimated that the total amount of peninsular capital that left Mexico between 1810 and 1821 was thirty-six and one half millions of pesos. H.G. Ward *Mexico* (London:1829), Vol.I, p. 392.

[11] See chapter III below.

when independence was achieved they became more active politically and worked to rescind laws which they perceived to be a major hindrance to the mining industry. Even then, their great enterprises continued to stagnate, forcing them to seek out British investment frantically, thus raising the question of why the mining elite was unable to rejuvenate the silver industry on their own.

The key to understanding the decisions taken by the mining elite requires an examination of the factors that determined the success of mining enterprises, the basis of their wealth. For example, the mining elite had relied heavily on their relationships with the Spanish Crown and other monied interests which were developed during the eighteenth century. The purpose of this chapter is to determine why those relationships evolved and how they lent themselves to the development of "the great enterprises" of the eighteenth century in order to show why there was such a need for foreign capital in the 1820s.

Silver mining in Mexico existed prior to the Spanish conquest[12] and Spanish involvement in silver mining

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[12] Alexander von Humboldt noted that "the natives of Mexico were well acquainted with the use of several metals...they applied themselves to subterraneous operations in the working of of veins; they cut galleries and cut pits of communication and ventilation; and they had instruments adapted for cutting the rock." Alexander von Humboldt, *Political Essay on the Kingdom of New Spain* (London: 1811), Vol.III, p. 109.

originated in the sixteenth century.[13] Zacatecas, one of the most productive mining centres in New Spain, was first discovered in 1546 and "for nearly two hundred years maintained an unbroken record of production."[14] Zacatecas, however, appears to be an anomaly for the most consistent feature of Mexican colonial silver mining regions was the persistent cycle "of discovery, abandonment, revival and decay, with few enjoying continuous production for over forty years."[15] The Spanish quickly learned that Mexico's geological characteristics affected silver processing, excavation and, ultimately, the commercial success of their enterprises.

Geologically, the cordilleras of the Sierra Madre Occidental of Mexico, which have always supplied the bulk of Mexican silver, can be divided into three distinct categories that are determined by depth. Nearest to the earth's surface the miner could find a small quantity of native silver and an ore with "reddish soft minerals known as *colorados* or *pacos*"[16] If they had oxidized (a process

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[13] Clement Motten, *Mexican Silver and the Enlightenment* (Philadelphia: 1950), p. 14.

[14] D.A. Brading "Mexican Silver-Mining," p. 666.

[15] *Ibid.*, p.669.

[16] D.A. Brading and Harry E. Cross, "Colonial Silver Mining: Mexico and Peru," in *H.A.H.R.*, Vol. 52, No.4 (November, 1972), p. 547.

that occurs through weathering), *colorados* could be constituted as high grade ore; however, the bulk that exists beneath the surface are of lower quality for they consist primarily of low grade sulphide compounds in their natural state. At the lowest level - in fact below the water line - the colonial miner could find a hard dark ore called *negrillos*. These ores had, through several centuries, seeped into the deeper recesses of the earth where they had oxidized through either a supergene sulphide enrichment or a hypogene concentration causing them to be often of a higher calibre than the *colorados*.[17]

The problem geological formation created for miners becomes much easier to understand if one other consideration is made. Colonial miners invariably drove their mines deeper and deeper in search of a higher grade of ore. If they were forced below the water line, the mines were chronically plagued with flooding. This problem was particularly serious in some mining regions where underground streams and rivers were close to the lodes of ore. The main body of the mine shafts were typically built vertically and to counteract the persistent flooding many miners attempted to construct horizontal drainage shafts

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[17] *Ibid.*

called adits at great expense.[18] Others relied on mule drawn whims called *malacates* which were always at the mercy of feed prices.[19]

The processing of ores was a another formidable expense during the colonial era and was determined by geological formation. Since the colonial miner often had to go through years of excavating low grade ores before he ever struck a rich lode (if he ever did) he had to refine those ores to cover a great part of his expenses. Unfortunately, because the bulk of Mexican silver ores were derived from low grade sulphide compounds, the colonial miner had to rely on a type of "cookery" called the patio amalgamation process as only high grade ores or those derived from lead compounds could be smelted. Ores, once brought to the mouth of a mine, were judged for their quality. They would then be crushed in a stamp mill or by a large stone drag device known called an *arrastre*. If it

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[18] "To construct a deep shaft cost as much as to build a factory or a church...During the Bourbon epoch, the Count of Regla drove an adit 2,881 yards long beneath the Veta Vizcaína, a project which took thirty years to complete. The Valenciana's great shaft, with a circumference of 32 yards and a depth of over 600 yards, cost a million pesos to construct - the equivalent of two churrigueresque churches." Brading and Cross, pp. 549, 550.

[19] Peter Bakewell, *Silver Mining and Society in Colonial Mexico, Zacatecas, 1546-1700* (Cambridge: 1971), pp. 133, 134. If *malacates* were employed the miner needed to first purchase the mules. He was at the mercy of feed prices for the mules were fed maize and straw.

had been determined that they needed to be amalgamated - mercury, *saltierra* (a type of salt), and often *magistral* (copper or iron pyrites) were added to the powder. This amalgam was either placed in vats to be heated, or formed into *tortas* (literally cakes) and trampled by either humans or mules until properly mixed. After a period of four to six weeks it was determined by the *azoguero* (the overseer of the refining process) if the ores had properly "cooked"[20] and if they had the mixture was washed, leaving the remaining silver to be melted into bars.[21]

The implications of the dependence on the patio amalgamation process were vast for colonial miners as its success was determined by a cheap and consistent supply of mercury. The amount of mercury to silver ore refined usually amounted to 2:1 and if one agrees with Humboldt's assertion that of three fifths of all silver mined in New Spain was amalgamated, any mining operation was doomed to

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[20] *Azoqueros* did not use any comprehensive scientific analysis of the *tortas*. Their judgement was based on past experiences or what had been passed down over the centuries and in this sense their profession behaved like a guild by the eighteenth century.

[21] See Brading and Cross "Colonial Silver Mining: Mexico and Peru" and Peter Bakewell for a more detailed and comprehensive explanation of the amalgamation process. It should noted that the reason that the patio amalgamation was used was because no other technology existed.

fail without assured supplies.[22] During the colonial era mercury had been a royal monopoly and the bulk of New Spain's supplies came from the Almadén mercury mines in the peninsula. When these supplies were diverted to the Viceroyalty of Perú in the seventeenth century, New Spain's silver industry went through almost a century of stagnation.[23]

There were other factors, such as gunpowder, that although expensive were much easier to determine as their price and supply remained relatively stable throughout the colonial era.[24] Even labour, which averaged about seventy-five per cent of mining costs, was never a problem unless the miner attempted to slash wages. Most mine workers throughout the Mexican mine regions in the eighteenth century represented a form of labour aristocracy. Those involved in refining received a daily wage high above wage labour on landed estates. Others involved in excavation received a *partido* (a portion of the ore excavated each day) in addition to a high daily wage. The *partido* was usually auctioned to an independent refiner or to the mine

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[22] Humboldt, Vol. III, p. 252.

[23] *Ibid.*

[24] Gunpowder was also a royal monopoly and its price was fixed at six reales per pound until 1780 when it was lowered to 4.5 reales per pound. H.G. Ward, *Mexico*, Vol.I, p. 400.

owner, depending on the extent of his operations. As D.A. Brading has pointed out, since the mine workers took part in the mine's produce, they perceived themselves to be actual partners in the mine.[25] If the miner attempted to eliminate the *partido* he was faced with harsh resistance and, more often than not, failed in his attempt.[26] In Guanajuato, the Conde de Valenciana could only eliminate the *partido* after he raised the daily wage of the mine workers to over nine reales a day, when the going rate in most mining camps was four reales in addition to a *partido*.[27] The manager of the Rayas mine, Manuel Jiménez, was more effective when he abolished the partido and refused to pay workers more than four reales a day. His success was largely determined by the establishment of a militia regiment with a permanent patrol picquet at the mine after 1767.[28]

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[25]Brading, *Miners and Merchants*, p. 146.

[26] The Conde de Regla tried rather unsuccesfully to eliminate the *partido* in the eighteenth century at his operations at Real del Monte. After meeting violent resistance on the part of the mine workers he was forced to ask for viceregal assistance however even this failed to put down the worker's resistance. The Conde was eventually forced to reinstate the partido. See Robert W. Randall, *Real del Monte* (Austin: 1972), pp. 23-26.

[27] Brading, *Miners and Merchants*, p.288.

[28] *Ibid.*, p. 277.

The colonial miner was usually unable to sustain the burden of the costs needed to keep a mine active. One of the reasons that mines went through continual cycles of abandonment and recovery was because of the inability of the owner to meet costs. Furthermore, in order to decrease the risks involved in mining,[29] those who entered the industry usually concentrated their efforts on mines that had been worked before until new discoveries were made since the mines were abandoned not because they were depleted, rather in want of capital. Most of the great enterprises of the eighteenth century were concentrated on mines that had been worked previously.[30]

Similarly, the eradication of as much risk as possible was also determined by the policies of the Spanish Crown. As forementioned, the seventeenth century mining lapse in New Spain was in part related to the diversion of mercury supplies to Peru and one of the reasons Zacatecas was one of the few mining regions to escape the effects of the lull was the ability of its miners to convince the Spanish Crown to maintain its mercury supplies at a reduced price.[31] For

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[29] Eight out ten mining enterprises failed during the colonial era. Brading, *Miners and Merchants*, p. 169.

[30] *Ibid*,. pp. 169-207.

[31] Brading, "Mexican Silver-Mining in the Eighteenth century," pp. 668, 669.

the most part, however, colonial miners were subjected to the perils of royal monopoly and taxation.

Until the eighteenth century, unless they could obtain a royal concession, miners were subjected to the *quinto* - the crown's royal fifth levied on all processed ore. Although this levy was reduced to a tenth (*el diezmo*), for both miners and independent refiners early in the eighteenth century, it nevertheless remained a substantial burden.[32] In addition to the Crown's monopoly on gunpowder and mercury, another source of royal revenue existed at the royal mint in Mexico City. By law all bullion had to be coined at the mint at Mexico City: the Crown "cut sixty-nine reales from each mark of silver and returned sixty-five to the miner."[33]

Faced with the financial burdens mentioned above, the colonial miner and refiner constantly required capital to fund his business. Furthermore he was in constant need of supplies for both refining and excavation depending on the

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[32] The reduction of the *quinto* was the first attempt at legislation to facilitate the growth of the mining industry.

[33] Brading and Cross, "Colonial Silver Mining" p.565. The minting duty was called *derecho de monedaje y señoreaje*. The processed silver was also assayed for which the crown levied an additional one per cent duty called *derecho uno por ciento*. Humboldt calculated that after the silver was refined the total taxation the miner faced amounted to sixteen and one half per cent of the value of the coined silver. Humboldt, Vol.III, pp. 328, 329.

extent of his enterprise. Throughout the colonial era and particularly during the eighteenth century both functions were fulfilled by merchant-capitalists called *almaceneros* or *aviadores*.

Almaceneros were primarily peninsular Spaniards operating out of Mexico City or Guanajuato who engaged in overseas commerce as well as domestic enterprise in New Spain. With respect to the silver industry their function was crucial for they provided short term loans (*avios*) and furnished salt, copper pyrites, maize, mercury, iron, wood, leather, and mules needed for the mining industry.[34] Some, such as the affluent Fagoaga family[35], became silver bankers in Mexico city, and demanded payment in specie for the credit and supplies they had provided. Others purchased processed bars of silver from miners at a reduced price and then paid for mintage.[36]

Originally, these merchant-bankers were limited in the extent of their ventures and actually hoarded specie until

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[34] The lines of credit for goods were usually provided by a Mexican bill of exchange called a *libranza*. It was similar to a European bill of exchange in that involved three parties. Brading, *Miners and Merchants*, p. 101.

[35] In addition to a silver bank in Mexico City, the Fagoagas made successful investments in the Sombrerete mines in the region of Zacatecas. José Mariano Fagoaga became the Marquis del Apartado in 1772.

[36] Ward, Vol.I p.398.

the next shipment of goods arrived from Spain. However, their importance and involvement increased by the eighteenth century as several miners began engaging in long range mining ventures that required long term credit arrangements and ever increasing amounts of capital. Many of the *almaceneros* became partners in mines, while others invested heavily in refining plants (*hacienda de beneficio*). More important to understanding the great eighteenth century enterprises, however, was the fact that most were founded or dominated by the *almaceneros* of Mexico City.

The mining fortunes of the Conde de Regla at the Real del Monte and the district of Pachuca had their roots in the eighteenth century and are indicative of one way *almaceneros* became involved in long term investments in the mining industry. The works at Real del Monte had focused on the principal vein Veta Vizcaína and had, from the sixteenth century until the eighteenth century, gone through cycles of discovery, abandonment, and decay. Even in 1726 the mines of both the Veta Vizcaína and Jacal (in the same district) reportedly went on to produce 292,774 marks of silver.[37] The central problem with Real del Monte however, was persistent flooding. One of the miners, José

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[37] Brading, *Miners and Merchants*, p. 184.

Alejandro Bustamante, decided to construct an adit at Real del Monte to eradicate flooding at Veta Viscaína. To fund his project he entered into an agreement with his friend Pedro Romero de Terreros, the future Conde de Regla. Romero de Terreros, a recent immigrant from Spain, had inherited a small fortune from his brother and from his uncle, a prominent merchant from Querétaro. In addition to improving on this wealth through his mercantile enterprise, Terreros agreed to back Bustamante with the remainder of his resources.[38]

The extent of the operations and terms of investment was astounding and demonstrated a great deal of risk-taking and patience. After nine years the original adit was abandoned, for it was not properly draining the vein. Recouping their losses, the two decided to construct a new adit which was not completed until 1762, during which time the produce of the mine was not even covering expenses. As well as constructing a refining mill for 425,708 pesos, Regla claimed to have invested 1,428,908 pesos during the entire period.[39]

Fortunately for Regla, Veta Vizcaína eventually became

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[38] *Ibid.*, p. 183.

[39] *Ibid.*, p. 184. Bustamante never lived to see the mine reach bonanza. He died and left his part of the operation to Regla in 1750.

one of the more profitable ventures of the eighteenth century. According to Humboldt, the mine had given a profit of £1,041,750 by 1774.[40] Regla's wealth is well reflected by two ships of war he presented to Charles III of Spain, as well as his loan of £208,350 to the Spanish Crown, for which he was supposedly never repaid.[41]

Yet Regla's venture becomes more significant if his investments are considered. As an *almacenero* he lent both capital and resources to the enterprise and had become increasingly involved because of the extent of those loans. Similarly, he had invested in a refining mill and *haciendas*,[42] which meant that his operation was entirely integrated. Moreover, and perhaps more important, there was his willingness to make a long term investment and the fact that particular investment took thirty-three years to pay off.

Other *almaceneros* who made succesful investments in in the mining industry developed different business relationships that affected the structure and success of their undertakings. The Conde de Valenciana's (Antonio Obregon) successful operations at the Valenciana mine

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[40] Humboldt, Vol.III, p. 217.

[41] *Ibid.*

[42] He had also invested in these *haciendas* to cover his investments and to will to his children.

depended on his partnership with Pedro Luciano de Otero which was formed in 1767. The ownership of the mine was divided into twenty-four shares, of which each commanded an equal amount. Originally, both relied on financial backing from *aviadores* and rather than expending capital on refining they auctioned off the ores to independent refiners. Since the ores derived from the mine were rich[43], they were able to secure a profit which they devoted to the construction of new shafts and it allowed them to eliminate their financial dependence on *aviadores*.[44]

Furthermore, Obregón and Otero maintained a steady flow of liquid capital to their enterprise as they were willing to lend cash to independent refiners to buy ore from Valenciana and other mines. In this sense they performed one of the functions of an *aviador*. And finally, they were relieved of the burden of the fixed investment required for a *hacienda de beneficio*.[45]

Many small scale miners had similar relationships with

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[43] The Valenciana mine averaged f100,000 profit for over forty years. Humboldt, Vol.III, p. 193.

[44] Brading, *Miners and Merchants*, pp. 278, 279. Obregón and Otero had decided not to construct an adit at their works, rather they relied on *malacates*. This meant that one long term investment was eliminated, however it also meant that they were allowed a supply of liquidity to purchase maize, straw and mules, rather than depending on credit from *almaceneros*.

[45] *Ibid*.

rescatadores (independent refiners), but most did not enjoy the same prosperity as the Conde de Valenciana. Most, in an effort to meet commitments with their *aviadores* and to pay for their operating costs, had to auction their ore once it had been excavated. As costs increased, so did their dependence on their backers. In this way both the *almaceneros* of Guanajuato and Mexico gained a great deal of control over the silver industry.

Similarly, the *rescatadores* had become increasingly reliant on the *almaceneros* by the end of the eighteenth century. Although many of them were merchants, they nevertheless needed supplies and a source of capital for the fixed investment of a *hacienda de beneficio*. Several agreed to sell their refined silver, rather than paying the exorbitant levies imposed by the crown. This system could work to the benefit of the *aviadores*, as the refining process continued to rely on the "cookery" developed centuries earlier.[46]

While the participation of the *almaceneros* in the silver industry increased during the eighteenth century, their eventual domination was linked to the policies of the Spanish Crown. Under the auspices of the Bourbon Reforms of Charles III, José de Gálvez was sent to New Spain as a

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[46] Ward, Vol.I, p. 398.

visitor general in 1765 to assess what changes were needed to increase royal revenues from the Viceroyalty.[47] Gálvez was instructed to pay particular attention to the mining industry.

Gálvez relied heavily on the advice given to him by several leading members of the silver industry. They included the Conde de Regla, Manuel de Aldaco (the director of the Fagoaga silver bank), and José de la Borda.[48] Gálvez obviously listened to their advice, for when he returned to Spain and became Minister of the Indies, the price of mercury was halved and several of the principal miners in New Spain received outright tax exemptions if they could prove that their ventures were risky and costs were high.[49] The Gálvez Visitation was instrumental in establishing a Mining Tribunal which was to act as an intermediary beween the Spanish crown and the Mexican miners. It essentially was a mining guild governed by

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[47] Motten, pp. 9, 10.

[48] de la Borda was one of the most notorious miners in eighteenth century New Spain. He had made succesful investments in the mines of Tlalpujajua and Taxco and had become virtually bankrupt by 1767 for he preferred to invest his wealth in the construction of churches rather than plowing his profits back into his enterprise. He received tax and mercury concessions and went on to exploit successfully the Quebradilla mine in Zacatecas. Brading, *Miners and Merchants*, pp. 198, 199.

[49] Brading and Cross, "Colonial Silver Mining," p. 562.

provincial deputations and a central court in Mexico City. Each deputation was selected by miners in each region from which two members were selected to reside in Mexico City who, along with a director selected by the Crown, constituted the Supreme Tribunal.[50] Each miner was required to contribute financially.

Furthermore, the Tribunal was not only intended to address the grievances of miners; it was also held responsible for the establishment of a technical college and a finance bank. It also had the powers to deal with mining litigation and one its first achievements was to establish a mining code in 1783. It contained comprehensive rules guiding discoveries, liability for miners, contracts for loans, as well as requirements for labour payments.[51]

The Tribunal had limited success. The silver bank, established in 1784 was unable to sustain itself because of some questionable loans it had made and was forced to suspend operations two years later. It did not resume operation until the turn of the century.[52] The college fared slightly better, because its students were taught mineralogy, metallurgy and other subjects that would enable

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[50] Ward, Vol.I, p. 393.

[51] Brading, *Miners and Merchants*, p. 164. See also Howe, pp. 46-49.

[52] Howe, pp. 136, 135.

them to understand the advances made in mining outside of New Spain. Although no real scientific breakthroughs were made by the college, it should be given credit, as it was aimed at modernizing an industry that sometimes depended on unscientific methods.[53]

As a representative body the Mining Tribunal signified the dominance of those miners from the great enterprises of the eighteenth century. By 1803 its membership included José Mariano Fagoaga as administrator general, Ignacio de Obregón, and the Marqués de San Juan de Rayas as deputies general. Since each of these men were deeply involved in the mining industry, their commercial interests were well connected with both peninsular merchants from Mexico City and Guanajuato as well as those of other creoles since their operations were not always entirely self-sufficient and depended on outside capital and supplies. The concerns they voiced to the Spanish crown tended to mirror the economic problems the Viceroyalty was experiencing. However, as members of the mining elite they had enjoyed economic and social privileges with the crown which were not extended to the small scale mining enterprise and refiner and thus they were able to dominate the silver industry.

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[53] Arthur Whitaker, "The Elhuyar Mining Mission and the Enlightenment," in *H.A.H.R.*, Vol.31 (1951), pp. 558-583.

By the end of the eighteenth century, for example, the Spanish Crown had begun to place more financial burdens on its colonies primarily because of its involvement in European affairs. During the war with England (1777-78) the Mining Tribunal was requested by the Crown to lend 1,000,000 pesos which, in addition to other requested "gifts," grew to over 2,000,000 pesos by the end of the century.[54] These fiscal ordeals were not extended only to the Tribunal, as in 1804 the Crown issued an emergency revenue measure called the *Consolidación de Vales*. Officially, it required all church institutions to call in their total outstanding capital. The Crown was supposed to obtain the entire amount and then pay a annual interest to the Church to fund ecclesiastical endeavours.[55]

The conditions of these loans were not unlike the ones the Mining Tribunal had entered into with the Crown in the eighteenth century; however, there was at least one important difference. As some of the biggest mortgage bankers in New Spain, religious orders were owed substantial amounts of capital by landed elites which was demanded immediately. Others had committed a portion of their estates to "paper loans" in which they would pay an

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[54] Howe, pp. 371-382.

[55] John Tutino, *From Insurrection to Revolution in Mexico* (Princeton: 1986), p. 107.

"annual interest to provide stipends to support selected churchmen - usually family members or retainers and was capital the church never had loaned."[56]

Although many of the mining elite had safeguarded their interests by investing in estates, they had been able to purchase those lands with profits they had made from their undertakings so they were not directly affected by the decree. The crisis that the *Consolidación* created was an immediate shortage of liquidity that was felt throughout the Mexican colonial economy and the Mining Guild was quick to point this out to the Crown.[57] While their reaction may have also represented a deep concern for their creole relatives, it was nevertheless a defense of their interests within the Mexican economy.

The interests of the mining elite began to experience greater pressures as the nineteenth century proceeded. Most of their mines required increased capital investment and New Spain experienced an extraordinarly poor harvest in 1809 and 1810 which added to the pressure the *Consolidación* placed on its supply of liquid capital.[58] Many of the

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[56] *Ibid.*

[57] "*Representación Contra la Consolidación del Real Tribunal de la Minería,*" in Masae Suguwara H. (ed.), *La Deuda Pública de España y La Economía Novo Hispana*(Mexico: 1976), pp. 37-50.

[58] Cross, "The Mining Economy of Zacatecas," p. 21.

mining elite remained loyal to the Crown; although some had been sympathetic to the insurgent cause originally, most contributed financially to the royalist cause once Hidalgo's insurgency began in 1810. By 1814 several of the great enterprises were virtually scrambling for capital.[59]

The effects of the insurgency on the mines were far-reaching and did much to eradicate the domination of the mining elite. Peninsular capital was withdrawn at a massive rate - much of it which had served the industry through refining and supplies began migrating back to Europe and as their industry was so dependent on this capital, the mines faltered. Guanajuato became the focus of the insurgency and the damage to it has been recounted several times by historians. The real damage for the mining elite, however, was that Guanajuato had literally been the centre of mining for to reach Mexico city from most of the other mining regions one had to pass invariably through it.[60]

Without access to Mexico City several of the mining regions established mints of their own in Zacatecas(1810), Durango(1811), Guadalajara(1812), and Guanajuato(1812).

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[59] The Conde de Regla, the Marquis de Rayas, the estate of the Conde de Valenciana had all accumulated debts with the Mining Tribunal between 1810-1813. These loans were always intended for mining operations. Regla's was 30,000 pesos, Rayas's debt ammounted to 84,000 pesos, while Obregón's had reached 80,000 pesos. Howe, p. 384.

[60] de Gortari Rabiela, pp. 129-162.

Furthermore, these regions were able to assert their power for the liberal regime in Spain permitted the establishment of seven provincial deputations, which included these districts and gave power to the less affluent miners and landowners.[61] Autonomy, once experienced, proved to be a difficult habit to do away with, and many of these regions continued to excercise control over their own finances once the new Republic was formed in 1824.

The success of the silver industry in New Spain depended on both fiscal relief and a consistent supply of capital. The eighteenth century prosperity of the great enterprises had depended on the *almaceneros* of Mexico City and Guanajuato as much as it had on the policies of the Spanish Crown toward the silver industry. Once the Spanish Crown began placing more burdens on New Spain's economy and peninsular Spaniards began withdrawing their capital the silver industry stagnated and the mining elite was forced to look elsewhere for investment.

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[61] Tutino,p.220.

COMPANY FORMATION

At first glance, the British mining ventures appear to be no different from any other joint stock company formed during the speculative boom. Even though their efforts were directed at a country which had developed a mining tradition during its colonial era that spanned centuries, the circumstances provided for those endeavours were consistent with those of other companies. All of the companies formed during the period originated because of a healthy British economy. Each was inextricably tied to the speculative boom and the subsequent mania in that their shares reached incredible heights during the zenith of the mania and collectively they experienced a crisis in liquidity that followed the crash of 1826. And finally, only one of the Mexican companies was ever able to pay dividends to its shareholders.

Yet after closer examination it becomes clear that some of the Mexican mining ventures were different from most of companies formed during the speculative boom. Four, in fact, were formed long before mining shares became the focus of the British mania which implies that their founders were interested in long term investment rather than the short term gains possible from stock jobbing. Similarly, most of the Mexican mining ventures continued to

call up capital during, and long after the speculative mania which would lead one to the same conclusion.

Indeed, after the British "literally burst onto the Mexican mining scene" in 1824, Mexico's mining sector became the largest portion of British mining investments in Latin America.[1] After the majority of the joint stock mining companies were formed by 1825, 2.2 million pounds sterling had been authorized for operations in Mexico,[2] an amount which "represented 63% of total British mining investments in Latin America."[3] The majority, however, became the focus of the speculative mania and their shares commanded higher premiums than those of other companies. But even from this standpoint most of the Mexican mining ventures were able withstand the force of public opinion after the conclusion of the mania. Their shares, as well as a solitary Brazilian mining venture, actually experienced periodic fits of revival until 1829.

The impetus for the formation of the Mexican mining ventures originally came from the initiatives of the Mexican mining elite. Certainly, the elite realized that in

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[1] Harry Cross, "The Mining Economy of Zacatecas", p. 211.

[2] At that time, one pound equalled five pesos.

[3] Cross, p. 220. There is no way of knowing how much of this capital actually made its way to Mexico but there is an indication that most of it did. see Chapter IV below.

order to attract investment to their stagnating industry the fiscal pressures of taxation had to be eliminated. Many were politically influential during the short-lived empire of Agustín de Iturbide, who ruled Mexico from September 1821 to March 1823, and apparently they used their positions well, for the long standing exactions known as *el diezmo*, *uno por ciento*, and *real de señoraje* were eliminated. All of the taxes on precious metals were reduced to a single three per cent duty.[4] After the fall of Iturbide, the interregnum triumvirate that governed and the Government of the Republic, instituted laws that would do away with the restrictions that had precluded foreign involvement in the mining sector. The mining ordinances *Recopilación de Castilla* and the *Recopilación de las Indias* that had previously barred foreigners from any type of involvement in mines were rescinded. Internal taxes that had been imposed on the circulation of money were abolished to facilitate the flow of liquid capital to the mines.[5]

The elimination of restrictive laws was not the only

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[4] Robert Potash, *El Banco de Avío de México* (México: 1959), pp.12-13. The mining elites participation must be qualified. Some such as Jose Mariano de Fagoaga and Lucas Alamán participated in politics and were adamant that the laws governing mining be changed. They represented only part of the elite and other laws, such as those governing trade were adopted. Ibid.

[5] Potash, p.16.

means used to attract foreign investment, particularly British foreign investment. Many of the mining elite used agents in Britain to attract interest in the mining sector while others established commercial contacts through the British merchant houses in Mexico City.[6] Partnerships with mine owners (who were often government officials) or remunerative mine leases called *alimentos*[7] were offered as incentives for prospective British investors.[8] The Conde de Regla, for example, established contacts through the Robert Staples Company - a merchant house operating out of Mexico City. Staple's partner in London, Thomas Kinder, succeeded in bringing together several investors, which led to the formation of the Real del Monte Company in 1824. The contract leasing the mines of Conde de Regla was signed with Real del Monte on 1 July 1824 (the duration of which was for twenty-one years, to which the Count would receive

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[6] The merchant houses were established immediately after independence was achieved in 1821. Most were familiar with the market as they had been engaged in contraband trade with Latin America through the West Indies during the colonial period. D.C.M. Platt, *Latin America and the British Trade* (London: 1972), pp.24-61.

[7] *Alimentos* were a form of rent of a mine which were supposed to be a subsistence allowance given to the mine owner for the right to exploit his mine.

[8] Robert W. Randall, p. 69.

a $12,000 *alimento*).[9] Lucas Alamán relied on The Hullet Brothers and Company of London to make the necessary connections for the formation of the United Mexican Mining Association. They had previously been involved with the Mexican Mine Company until 1824 and also established the contract for the Anglo Mexican Mining Association for the Valenciana mine in Mexico.[10]

Alamán's role in bringing foreign investment should not be underestimated. He had first attempted to establish a mining company in France (the Franco Mexican Company) however this failed as he was unable to attract investors. The companies contracts were taken over by the United Mexican Mining Association. As its president of operations

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[9] "Kinder vs. Taylor," in *The Law Journal* 1825 pp.68-69.

[10] *The Morning Chronicle*, 7 January 1824. The contract for the Valenciana mine was: The Association loaned the estate of the Conde de Valenciana 500,000 pesos which was to be expended on the mine. For this loan the company was given a one third share for all the annual profits. The loan was to be paid at the end of twelve years and the Association was required to pay for the cost of a steam engine which was to be ceded to the proprietor. Five per cent of the net profits after interest was to go to the merchant house who established the contracts. The company was required to supply all necessary mercury as well as any other supplies required for the mine for which it received a twenty five per cent profit and out of that an eighth was given to the merchant house. If the 500,000 pesos was not enough to bring the mine into full production, another 200,000 was to be advanced and the company's share of the profits was to be increased to one half. *The Morning Chronicle* 9 January, 1824.

in Mexico, he was able to secure contracts for miners in the states of Guanajuato, Guadalajara, Zacatecas, Chihuahua, Oaxaca, and the state of Mexico.[11] As a managing director however, he was reserved shares and therefore had a financial stake in the company. This was not unusual, for most joint stock companies would reserve a certain number of shares for Latin Americans or have Latin Americans on their respective boards of directors to help attract British interest in their shares. It was assumed that the companies would be more stable if a member of the Mexican elite had a financial interest in them.

Moreover, the stability of the Mexican government was a concern of those who formed and invested in Mexican mining ventures.[12] By the nineteenth century political

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[11] H.G. Ward, *Mexico* (London: 1829), Vol.I, p.407. Alamán placed certain conditions on miners before he would engage in contracts on behalf of the company. These were: titles of property for proof of ownership; they were required to report whether or not the mine had a lawsuit; they had to furnish a statement of revenue thereof during the years that preceded the revolution as well as a report of the interior and exterior of the mine (the height, the water in it and an estimate of the amount of machinery needed to drain the mine); an estimate of the capital required to bring the mine to working order; and a report on the amount of wood or combustibles in the neighborhood of the mine. *The Morning Chronicle*, 11 May 1824

[12] *The Morning Chronicle* was more than favourably impressed when news arrived that Mexican stability was becoming a reality by July, 1824. Obviously, so were investors, for Mexican consols rose from 53 3/4 to 55 3/4 in two days. The *Morning Chronicle* 19 July 1824.

interests and representation were manifested through masonic lodges. "At the apex were the beneficiaries of the existing political and economic order" (which included the clergy, the "old nobility," senior army officers, and large scale merchants) who were Scottish rite masons (*escoseses*).[13] In rivalry to them stood a second group of York rite masons (*yorkinos*) whose social composition was largely made up of the professional classes: lawyers, doctors, clergy and military of a low rank, small property owners, miners and lesser merchants.[14] These two groups[15] whose interests began to diverge during the independence period, continually struggled for power throughout the nineteenth century. However, when Mexico became a Republic in October 1824, a relative balance was achieved that lasted four years. Guadalupe Victoria, Mexico's first president, was a *yorkino*, while the vice president, Nicolas Bravo, was an *escoses*. Lucas Alamán, described by Jan Bazant as "the most influential cabinet member," was an *escoses* while Esteva,

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[13] Brian Hamnett, "Mexico's Royalist Coalition: The Response to Revolution," *Journal of Latin American Studies*, Vol. 12 (1980), pp.85, 86.

[14] *Ibid*.

[15] The *escoseses* became Mexican Conservatives, while the *yorkinos* became Federalists.

the minister of finance, was a *yorkino*.[16]

While understanding the circumstances in Mexico as well as the position of the Mexican government during the 1820s, it is worthwhile, if not crucial, to understand the position of the British government towards Mexico. Indeed, after the crash had occurred, one of the directors of the United Mexican Mining Company, speaking to the shareholders, stated "that before the directors instituted any proceedings [in Mexico], that the independence of South America and Mexico in particular was acknowledged by our [the British] government,"[17] thereby guaranteeing protection for British property and investment. Latin America was not the main concern of British foreign policy and throughout the nineteenth century it was treated by the British government as a-political[18]. After 1810, the main thrust of British diplomacy was dedicated to keeping relations between Spain and her colonies free from interference from any other power, and actually supported the Spanish authority over the colonies.[19] British policy, however,

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[16] Jan Bazant, *A Concise History of Mexico*, (Mexico: 1977), pp. 38, 39.

[17] *The Times*, 5 May 1826.

[18] D.C.M. Platt, p. 308.

[19] C.K. Webster ed., *Britain and the Independence of Latin America: Select Documents* (London: 1938), p. 10.

demanded that freedom of trade had to be guaranteed.

During the 1820s, however, it became impossible for Britain to delay recognition. Pressure was being exerted by the United States which recognized all of the new Republics in 1822. The British position was undoubtedly influenced by the fact that the United States was "the most dangerous trading rival" in Latin America.[20] More important to the British position was that by 1824, more and more British capital was being invested in Latin America, bringing forth the need for protection for British lives and property.[21]

Certainly George Canning was aware of Latin America's and Mexico's commercial potential. Within the "Liberal Toryism" that characterized the period 1822-1827, Canning, in his capacity as Foreign Secretary, strove for "fair and equal treatment in Latin America," not favoured treatment.[22] Canning was aware of the problems and potential Mexico's mines held for British investments. In addition to the void left by Spanish merchants, there were other advantages for Britain if Mexico's mining sector recovered, as Charles Mackenzie's correspondence to Canning in 1824

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[20] Platt, p.313.

[21] If one considers the British expedition to Montevideo early in the nineteenth century, it is possible that British investors believed that their interests would be protected by a military presence if needed.

[22] *Ibid.*

indicates:

> The restoration of the mines (already begun and on which so much depends in Mexico) will be the first event that can very considerably affect the amount of the imports, as by these means indirect vigour will be given to every branch of industry in the Republick [sic]. The prosperity and progress of this country bear a direct ratio to the activity with which the mines are worked. From their present condition, they cannot be immediately restored but with time they may even exceed their former productiveness. While these gradual improvements are going on, the low prices of European manufactures will progressively introduce a taste for them and that which is now an article of luxury will hereafter become one of necessity. Thus in the end augmenting their consumption to a greater amount.[23]

Even though Canning would state "Spanish America is free, and if we do not mismanage our affairs sadly, she is English", the reality was that Britain had only recognized Buenos Aires, Colombia and Mexico by January of 1825.[24] Undoubtedly, Mexico was regarded as possessing potential markets and overall commercial importance (the commercial treaty between Mexico and Britain, gave the British most favoured nation status). Moreover, from the standpoint of those investing in mining ventures, Mexican silver reserves must have appeared to have had commercial potential.

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[23] Charles Mackenzie to George Canning, 14 July 1824, in R. A. Humphreys (ed.), *British Consular Reports* (London: 1940), p. 321.

[24] Eric J. Evans, *The Forging of the Modern State* (New York: 1983), p. 199.

Another factor that contributed to the vast capital exports to Mexico by 1825 was the rising level of liquidity that existed in Britain after 1822. Certainly there were non-monetary factors that contributed to the supply of money and the speculative mania of 1824-25 such as the new opportunities abroad; a shortage of goods that were in demand; agricultural output in Britain was high from 1820 to 1822; and the interest on the government debt was lowered.[25]

However, the supply of money primarily related to the Bank of England's policies. The Bank first released a large amount of exchequer bills in 1822, largely at the behest of the British Government, and the years 1823-5 saw a "mounting circulation of bills".[26] Because the Bank's exchanges appeared equal by August 1824, it decided to increase its note issue - which expanded its circulation even further. This expansion of liquidity contributed to investment in foreign loans and the joint stock companies operating in Latin America.[27]

The circumstances for forming joint-stock mining companies being set, promoters, stock jobbers, Members of

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[25] *Banking Controversies in 1825*, p. 71.

[26] Boyd Hilton, *Corn, Cash, and Commerce* (Oxford: 1977), p. 206.

[27] Hilton, p. 204.

Parliament, bankers, merchants and many other professions began banding together to establish the companies. Legally, the type of joint stock companies formed was not affected by the Bubble Act. Under the Stannery Law - originally developed in Cornwall and Devon to establish regulations for other types of mining besides tin - adventurers formed simple partnerships in which they were partial owners of both the produce and assets of the mines. It was from this original custom that the cost book company was developed which was made up of share holders who were all willing to bear a portion of costs in relation to the shares they held - their names being entered in a "cost book" for a share.[28] This was a way that the adventurers were able to raise large amounts of capital quickly, for which only a small percentage of the cost of a share, about five percent, would be asked for. As already noted to purchase a share with a value of £100, only £5 would be demanded. When companies required more liquidity, they made calls for part of the remaining capital owed. Many Country Banks took advantage of this process, even using the shares in which they had invested as part of their reserves.[29]

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[28] P.L. Cottrell, *Industrial Finance* (London: 1979), pp. 9-10.

[29] L.S. Pressnell, *Country Banking* (Oxford: 1956), pp. 480-483.

The source of capital investment in the new companies was the burgeoning London Stock market. A new issue market was still in a rudimentary form, having only been established in 1822. Although there were small transactions in foreign loans, a secondary market called the Foreign Market dealt in foreign stocks and bonds did not develop until 1823, reflecting a relatively small amount of capital exports at that time.[30] The shares in the joint companies formed for operations in Latin America were bought and sold by the public exclusively on the secondary market through either brokers or jobbers.

The activities of those involved in the formation and promotion of several Latin American mining Companies, have lent support to the generalization that characterized the majority of joint stock mining companies as pure speculation. The myth of the supposed treasures of Latin American wealth was manipulated to the extreme by promoters, brokers and jobbers. As is so often the case in speculative booms, the few people who profited, did so with out risking their own capital. For example, Joseph Parkes testified to the Select Committee on Joint Stock Companies in 1843 that a "friend" of his purchased ten shares of Real del Monte stock in 1825 and sold them for £400 to £900 profit before

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[30] P.L. Cottrell, *British Overseas Investment*, p. 18.

any further calls for capital were made by the company.[31] Furthermore, there were instances where so-called "sharks" would promote fraudulent companies, in some cases using non-existent names that were included on the prospectuses used to promote companies.[32] Another characteristic of the speculative mania was the predominant interest in short term gains. Ignorant investors, not realizing that mining of any sort is a long term investment, abandoned their shares as soon as they decreased in value. In other situations, companies were formed without any prior knowledge of the past performance of mines and in some cases, contracts were entered into for districts which had never been mined before.[33]

Unquestionably, there were instances where speculation was the only concern of the promoters and directors who formed paper companies for supposed operations in Mexico. One only need to recall the Guanajuato Company,[34] as it represents an interesting example of how the "sharks"

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[31] The "friend" reportedly "had paid hardly any deposit" on the shares. *Report of the Select Committee* (1844), p.225.

[32] *Ibid.*, p. 356. See also Peter Mathias, *The First Industrial Nation* (New York: 1969), p.235.

[33] The majority of fortunes made from silver mines in eighteenth century Mexico were based on a recovery process. See D.A. Brading, *Miners and Merchants* , pp. 261-302.

[34] Randall, p. 35.

operated during the speculative boom - in fact contributing to the eventual downfall of the entire London market.[35] In Henry English's 1827 assessment of the progress of joint stock companies, it was asserted that "of this Company little can be said .... had the Contents of the Prospectus been true, of which we entertain our doubts, the success of the Company was certain."[36]

Another company proposed for works in Mexico, the Viscaína and Moran Mine Association was presented to the Foreign Market in February 1825. It also reflected the way paper companies were promoted. It claimed to have secured contracts for the Viscaína and Moran veins from a "gentleman holding a high military rank in the Mexican service" yet in reality these were the same veins the Real del Monte Company legally secured in July of 1824.[37]

The Mexican Mine Company offers another interesting example of a mining investment that was not viable; in this case it was not, however, deliberately fraudulent. It was established in 1823, and it was founded and promoted by Sir

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[35] It should be noted that nearly all of the companies formed adopted the names of the countries or mining areas they sought to exploit. The majority of the joint stock companies in fact were formed before any formal contractual arrangements were reached in Latin America.

[36] English, *Part II*.

[37] *The Morning Chronicle*, 23 February, 1825.

John Lubbock and the Barings. The Mexican Mine Company's agent and manager in Mexico, John Bullock, was apparently more "influenced by the beauties of the scenery, than by the intrinsic value of the mines,"[38] and had entered into contracts in Mexico on behalf of the Mexican Mine Company. The company had made various haphazard attempts to discover new silver mines. It failed in 1826, "but not until fifteen or twenty thousand pounds had been thrown away."[39] The company had concentrated much of its efforts on one "unknown" mine at Temascaltepec, reportedly against the advice of the "natives" who predicted from the outset that the mine would never produce any silver.[40]

The way a company presented and promoted itself, as well as what was known about particular mining districts is one way to determine the viability in the marketplace of that company. Mining was understood to be a speculative business, even in the best of times. In the eighteenth century, eight out of ten adventurers were ruined financially, despite their best efforts to make the mines profitable. Those who were successful had concentrated their efforts on mines that either been abandoned or

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[38] Ward, Vol. II, p.154.

[39] *Ibid.*

[40] *Ibid.*

neglected for want of capital and these mining operations often took years to become profitable - get rich quick ventures were virtual anomalies. This history was well known and when British companies perpetuated the myth that riches could be found quickly (as in the case of the prospectus of the Guanajuato company), they were clearly misleading investors. On the other hand, if companies entered "unknown" districts, and thought immediate wealth was at hand, they were clearly misconceived (such as the Mexican Mine Company)[41]. However, it is necessary to discern when economic expansion in Britain became speculation to conclude whether the companies formed were only taking advantage of a bull market.

Certainly, it is possible to conclude through a review of some of the literature available to British investors that the economic boom became a speculative mania There is no need to stress that *The Monthly Repository* (the British periodical devoted to theological issues) began listing joint stock companies from February to December 1825;

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[41] The importance of access to past records of mines extended to companies no matter how stable or well founded they were. The Tlalpujahua Company company had taken every precaution to ensure success (see below) yet its failure in 1828 was largely related to the fact that it had no records to rely on, rather it depended on the assurance of the mine owners who claimed that there was still plenty of ore to be had. Joseph Burkhart, *Aufenthalt und Reisen in Mexico* (Stuttgart: 1836), Vol.I, p.100.

however, it can be deduced that interest in speculation was becoming fairly widespread by that time. By March 1825, manipulation and pure speculation in the shares of Mexican mining companies became a concern of *The Quarterly Review*.[42]

It appears, though, that several of the Mexican Mining ventures were not taking advantage of a gullible public nor manipulating their shares to the detriment of British investors. Indeed, it is necessary to set many of these companies outside the speculative mania for the simple reason that many of them were formed and presented to the public prior to February 1825. The Anglo-Mexican Mining Association, the Bolaños Company, the Tlalpujahua Company, the Real del Monte Company, and the United Mexican Mining Association all entered into contracts prior to February 1825. Negotiations for the Bolaños Company, the Real del Monte Company, and the Anglo-Mexican Mining Association had begun as early as 1823.[43] Considering that Alamán first went to Europe in 1822, contacts made for the formation of of the Mexican Mining Association began much earlier than the majority of joint stock mining companies.

However one examines the shares of three mining

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[42] *The Quarterly Review*, Vol. XXXI (March 1825).

[43] "Kinder vs. Taylor," in *The Report of the Select Committee on Joint Stock Companies*, (1844), pp. 68, 69.

companies (the United Mexican, Anglo Mexican and Real del Monte) that appeared early in 1824 and their progression through 1825 the role of the Mexican companies becomes much more clear as does the time frame of the "mania." All three were presented to the public by February of 1824. None of them reached much more than a premium of five per cent for almost eight months yet had made calls on their shares[44]. By the end of October, after some favourable reports (some of them rumours) their shares started to increase slowly, yet they were still the only Latin American mining companies to appear on the Foreign Market. By 20 November, there was a dramatic increase in each and was marked by the appearance of two other mining companies. The United Mexican shares for example reached a premium of £8 by 21 October, yet jumped to £30 sterling on £12 paid. In the following week the shares of all three companies virtually skyrocketed.

The most extreme of the three proved to be the Real del Monte company. It had seldom even been listed throughout 1824, yet it had made calls amounting to £70 sterling on shares with a nominal value of £400 sterling. Its shares were sold on 23 November for as high as 775 guineas.[45]

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[44] See the *The Morning Chronicle* from February until October 1824.

[45] *Ibid*, 23 November 1824.

During the next few weeks its shares fluctuated between 775 and 550 guineas, which reflected the beginnings of the "mania" as new companies began appearing daily. By 1 January its shares reached £800 sterling and with the news of the recognition of the Latin American republics, its shares reached a high of £1300 sterling[46] only to decrease slowly over the following months.(Please see figure 1) The artificially high price of its shares continued to 21 December 1825, when they fell dramatically to £470; but by 30 December, their price had recovered to £530. In October of the following year, they had dropped to a low of £300.[47]

There does not appear to have been any attempt on the part of the majority of Mexican mining companies listed immediately above to mislead investors; in fact, the evidence tends to show the exact opposite. None of these companies made any guarantee in their prospectuses of wealth in an early future.[48] The Anglo-Mexican Company for example, stated that would be at least two years before any returns could be expected from the Valenciana mine, one of the most profitable mines of the eighteenth century.[49] The

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[46] *Ibid*, 11 January 1825.

[47] See figure 1.

[48] English, *Guide to Companies*, 1825.

[49] *Ibid*. pp.5-6.

Tlalpujahua Company (presented to investors on 22 December 1824) even warned investors that it would take time for its mines to be worked and felt it necessary to "declare the real nature of the undertaking, in order to prevent prevent the shares from acquiring any fictitious value..."[50] John Taylor, the manager of both the Bolaños and Real del Monte companies wrote to the *The Morning Chronicle* in October of 1824 to dispel a rumour of "a discovery made of great mounds of ore on the surface" at the Real del Monte mines.[51]

It is plausible, then, to conclude that two stages of investment occured regarding the mining companies listed: the first stage was represented by those who formed the companies; the second being the general public who desired immediate capital gain. Most of the Mexican companies exceeded the amount of capital called up by other mining ventures.[52] If one examines the large amount of capital

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[50] *Ibid.* p.61. It should be noted that the majority of companies devoted their efforts to recovering mines and based their operations on mine records and assessments made by their managers in Mexico.

[51] *The Morning Chronicle*, 14 October 1824.

[52] If a company called up a small amount of capital over a long period of time the chances it was formed for share manipulation were high. In addition, it indicates that its directors were not willing to make a long term commitment. The Anglo Mexican company had called up 250,000 pounds by November 1825 (25 pounds on 10,000 total shares).

(continued...)

actually called up by the companies in 1827 it can be deduced that a great deal of capital continued to be required for fixed investments. It reflects a commitment to long term returns by these companies. There are, however, other factors, such as company structure, that need to be examined, to determine if the companies were viable.

Company structure and director membership undoubtedly relates to the viability of that company, and the Mexican mining ventures of the 1820s onwards were no exception. Certainly the directorships of the five companies that survived to 1835 (Anglo-Mexican, Bolaños, United Mexican, Real del Monte, and Mexican) and the Tlalpujahua Company did not differ greatly from that of the Mexican Mining Company. Most directors were respectable bankers and merchants form London. David Barclay, a director of the Anglo Mexican Mining Assocation, was also a director for the Bank of England. William Ward, of the same company, was listed in *The Banker's Circular* as a "Bank Director, Cambist, and Mediterranean Merchant."[53] Ward was also a director for the Bank of England. Francis Baily, who had

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[52](...continued)
Real del Monte had called up 165,000 pounds (330 pounds on 500 total shares) whereas the Pasco Peruvian Mining Association had called only 50,000 pounds (5 pounds on 10,000 total shares). *The Times* 29 November 1825.

[53] *The Banker's Circular*, #6, p. 47.

retired from business in 1825, served as a director for Real del Monte Company; he had apprenticed in a London mercantile house from 1788 to 1795 and later entered into a partnership with a London stockbroker in 1799. Although he published several works on annuities and insurances in 1808 and 1810 and in fact took an active part in the exposure of the Berenger fraud, his true interest was astronomy and he was one of the founders of the Astronomical Society in 1820.[54] Sir Thomas Fowell Buxton, described by the *Dictionary of National Biography* as a philanthropist, was a director for both the Real del Monte Company and the Bolaños Company. He was, perhaps, best known for his advocacy of both prison reform and the abolition of slavery during his tenure as Member of Parliament for Weymouth 1817-18. He also served as a partner in the Truman, Hamburg and Company brewery.[55] John William Buckle, of the Mexican Company, was formerly the Chairman of the Shipowners Committee and had, in 1814, "represented to the Board of Trade the fears of the Brazil Committee of South American Merchants" of the encroachment of other nations in Latin America.[56]

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[54] *The Dictionary of National Biography*, Vol.I, p. 48.

[55] *Ibid*, p. 182.

[56] Boyd Hilton, *Corn, Cash and Commerce*, p.188.

It can easily be questioned whether any of these directors had a clue about mining ventures Nevertheless, the majority of the companies were well conceived because of their choice of managers and commissioners that were stationed in Mexico. The structure of these companies had their managers residing in London while the commissioners in Mexico dealt with government officials, agents, workers, financial affairs and the general workings of the mines. It appears as though these companies were selective in their choice of managerial employees, making sure that they could fulfill every capacity and, as was often the case, deal with any difficult situation that could arise. Considering that it was two months journey to Britain from Mexico, qualified and honest managers were a necessity. As Thomas Buxton's reply to a friend who was trying to lobby for a job for a member of the navy attests to:

> You say he is brave; what does that have to do with the mines? We don't want to fight the silver. Is he a vigorous energetic dog, who will conquer the difficulties? Is he a sharp clear-headed man, who will not let us be cheated? Is he a man who will do business? Is he a good tempered man, who will quarrel with nobody? You naval gentlemen think of nothing but courage, and you think you have given the most special recommendation when you assure us that your friend is most perfectly ready to knock out his neighbour's brains, whereas we cowardly landsmen are not so fond of fighting,

or fighting men.[57]

John Taylor, for example, was responsible for the foundation of the Real del Monte and Bolaños companies. He acted as manager for both Real del Monte and Bolaños, a capacity he maintained through 1835.[58] Taylor enjoyed a high reputation in English mining circles and his responsibilities included selecting Commissioners for Mexico, as well as submitting reports to the stockholders.[59] Taylor also attempted to impose British mining technology on the Mexican mines.

While Bolaños and Real del Monte enjoyed Taylor's capable managerial abilities, the remaining companies listed had success in their choice of Commissioners for operations in Mexico. John Rule, known as having been "brought up as a practical miner" in the town of Camborne in Cornwall, had an association with Real del Monte well after 1835.[60] James Vetch, a Captain in the British Royal Engineers, served as Commissioner for Real del Monte, Anglo-Mexican and the United Mexican mining companies until

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[57] Charles Buxton (ed.), *Memoirs*, p. 151.

[58] *The Mining Journal*, 11 October 1835.

[59] Randall, pp.66-67.

[60] *Ibid*, p. 40.

his return to Britain in 1835.[61] Joseph Burkhart, a German mining engineer, was employed by the Tlalpujahua Company until its extinction in 1828, after which he worked for the Bolaños Company. He was the same "well educated German miner" that was praised for his contributions to metallurgy in the Journal of the Royal Geographical Society of London.[62]

There were also attempts to introduce qualified individuals to the mining ventures, as well as British technology. After a party of miners, engineers, tradesmen, and storekeepers were sent over from Britain. They would be followed by a principal smelter and metallurgist, a physician, a surgeon, a bookkeeper, a farmer, a principal ore dresser, a superintendant of saw mills, a millwright, nine blacksmiths and boiler makers, five carpenters, two masons and furnace builders, three ore dressers, four smelters and silver refiners, two brass and iron founders, five pitmen and three collarmakers.[63] At the same time, the machinery and materials sent over included: five steam engines for pumping, two for stamping ores, two for saw mills, in addition to pumps for the mines and tools for both the

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[61] *Ibid.*

[62] *Journal of the Royal Geographical Society of London*, Vol. X, 1941.

[63] English, *Part II*, p. 98.

engineers and miners; the total formed an aggregate weight of 1,600 tons.[64]

It appears, then, that several of the Mexican mining companies were valid enterprises dedicated to long range returns for investors. The question that arises, however, is if the companies were viable why did they fail? Indeed in 1826, when Thomas Wilson appeared before Parliament with Petition of the Merchants of London, he claimed that he differed widely from those who attacked the mining ventures, considering them to be sound investment. He reasoned that if the Spanish had made profits from the mines, why could not the British?[65]

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[64] *Ibid*, pp. 96-99.

[65] *Parliamentary Papers, House of Commons*, Vol. XIV, p. 107.

SOMETHING VENTURED, NOTHING GAINED?

The British mining companies were faced with certain realities upon their arrival in Mexico. Even though Mexico had characteristics that made silver mining potentially more productive than in other regions in Latin America the actuality was that the mines were in a state of decay and required a great deal of fixed investment. Similarly, pressure arising out of the speculative boom in Britain placed the companies in a precarious position, as they were expected to pay dividends almost immediately. Although these expectations were unrealistic, it has been argued that the companies were commercially unwise and contributed to their own downfall by committing serious errors during their first years of operation. Yet closer examination reveals that many of the works undertaken by the companies were within the framework of long term investments while other works were intended to improve on the existing Mexican technology.

The impression given by both British and Mexican historians is that British companies totally ignored existing Mexican technology. Undeniably there is some truth to this argument, as the British companies originally believed that in addition to the steam engine "Cornish Science" would provide the key to solving the dependence on

the patio amalgamation process. However, if one considers that it was impossible for the majority of the companies to use steam engines in their mines and instead relied on *malacates*, it becomes clear that the British were not totally oblivious to the realities of mining in Mexico.

And finally, the importance of the speculative "mania" needs to be stressed and reexamined as far the operations of the companies are concerned. All of the companies were faced with financial burdens after the crash and were supposed to survive without expecting more capital from their investors. This may have not only hampered their operations but also increased the pressure on them to produce a bonanza. The purpose of this chapter is to examine the operations of the companies in Mexico to determine if they were unrealistic and therefore commercially unwise. Furthermore, the effects of the speculative boom on those operations will also be examined.

Each of the companies were confronted with problems that required large fixed capital investment. One of these problems related to the level of water in the mines resulting from the severe neglect caused during the Independence period. The mines were fundamentally different from when the optimistic reports appeared in *The Quarterly*

Review in 1823[1] and when the first mining company appeared in 1824. Much of the capital that had been called up by 1827 had been used in repairing the mines, which in some cases required the building of new adits (horizontal drainage shafts) at great cost. Roads were built to take the silver from mining districts in central Mexico to the port of Tampico.

For the Real del Monte Mining Association, the transportation of its steam engines turned out to be one of the greatest disasters in the company's history. The roads in Mexico were ill-suited for the wagons needed to transport the machinery and the expedition was thwarted by rains and yellow fever.[2] The engines, which had left Britain in October 1824, did not arrive to the company's mining works until May of 1826.

While Real del Monte's attempts to bring steam engines to Mexico appear to have been a severe miscalculation, the efforts of the company need to be qualified. Unlike most of Guanajuato, for example, the Real del Monte-Pachuca mining district was particularly well suited for steam engines as it had an adequate supply of fuel. Considering that the

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[1] The article that appeared in *The Quarterly Review* was actually based on Baron von Humboldt's English edition of the *Political Essay on New Spain* which originally appeared in 1811.

[2] Robert W. Randall, *Real del Monte*, pp.52-60.

perennial problem of water was a cause for great fixed capital expense throughout the eighteenth century, the decision to bring in steam engines to the mining district was not as preposterous as it first may seem.

Most of the companies, however, quickly learned that it would be impossible to use steam engines and were forced to rely on *malacates*. The Anglo Mexican Mining Association had made miscalculations early in its history similar to those of the Real del Monte Mining Association. Although its miners quickly discovered that fuel was wanting in Guanajuato for steam engines,[3] it nevertheless had expended 100,000 pounds sterling on machinery (which included duties and carriage from the coast) when it was discovered that *malacates* had to be used[4]. To its credit, however, the company "planted more than 20,000 trees in Guanajuato," which indicates that it eventually intended to use the machinery as well as being committed to a long term investment.[5]

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[3] *The Morning Chronicle*, 26 February 1825.

[4] H.G. Ward *Mexico*, Vol.I, p. 416.

[5] Stanley C. Green, *The Mexican Republic: The First Decade, 1823-1832*, (Pittsburgh: 1987), p.133. The Tlalpujahua Mining Association had thought the *malacate* would be better suited to their works and had apparently had had attempted to improve on the existing technology. Ward, Vol.II, pp.114-115. They found that they had to enlarge on the mine shafts to make this successful, and were eventually forced to construct an adit at great expense.

Furthermore, there were other expenditures and initiatives taken that were clearly misconceptions on the part of the British companies. Most of the companies believed that they could improve on the existing technology used for the amalgamation process, but all were forced to acknowledge Mexican superiority in the existing technology[6]. For example, the Real del Monte tried to use specific "British" guidelines for milling operations and attempted to smelt poor grade ores rather than depending on the advice of *azogueros*. Two stamping mills were built at the Vizcaína vein and another near their Moran mine and the company intended to use the same methods practised in Cornwall. The effort was frustrated and the company turned back to the patio amalgamation process which had been more efficient in the first place.[7] Although the amalgamation process did not change, each of the companies must be given credit for their experiments, for they were "aimed at

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[6] See Marc Beaufoy, *Mexican Illustrations*, pp. 273-279.

[7] Randall, pp. 110, 111. The Mexican Company had also tried to experiment with the smelting of ores, but it too was unsuccessful. Ward, Vol.II, p.531. Although the British had been more judicious in making exact measures and keeping better records of the amounts of mercury, pyrites, lime and salt used for patio amalgamation, it continued to be the dominant technology by 1846. John Phillips. "Descriptive Notice of the Mines and Amalgamation Process of Mexico," *The Railway Register and Record of Public Enterprise* Vol.I, January 1846, pp.85-294.

minimizing waste of materials."[8]

Most of the companies had made the decision to process the ores themselves rather than relying on the independent *rescatadores*. This meant that they were required to spend a great deal of capital on additional fixed investments. The Anglo Mexican Company had constructed nine *haciendas de beneficio* completely fitted with *arrastres*, while they were forced to purchase 3100 mules and horses for its mines alone which meant that it was forced to rely on a low price for feed. In 1826 at the Valenciana mine alone, the weekly expenses amounted to £1,200 sterling. By September of that year the fixed capital outlay of the mine amounted to £134,452 sterling.[9]

Poor decisions made by the companies when they first started operations in Mexico caused many problems and increased financial costs. There was an ill-fated attempt made by the Real del Monte to bring Cornish miners to work certain aspects of the mines. Vetch, acting as Commissioner in 1825 at the time, found the British miners difficult to

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[8] Harry Cross, "The Mining Economy of Zacatecas", p.78 The principle problem with the amalgamation process was how to reduce the loss of mercury. This would be of particular importance, for in 1831, the London branch of the House of Rothschild gained a world monopoly on mercury and maintained an artificially high price until the 1840s. Randall, pp. 168, 169.

[9] Ward, Vol.I, p. 426.

manage. Many of them left, in fact, to find work where the pay was higher. Real del Monte adjusted to the situation and began relying on a more dependable Mexican labour force.[10]

The early periods of the companies were characterized by a great deal of expenditure which was needed to improve the mines and, after some critical errors, readjustment on the part of the companies. To the credit of the Commissioners, they learned to adjust to the situation rather well, given the circumstances. The United Mexican Company, for instance, invested one million pesos in Sombrete and Vetagrande in 1825 to 1826, but the mines, for various reasons, failed miserably by the end of 1827.[11] They did not suspend operations, but worked other mines and learned to adapt to the Mexican situation. Beckett Hampshire reported that even by December of 1835, a new "stamping process introduced from the want of people, and from the holidays" proved to be very effective for the United Mexican Mining Company.[12]

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[10] Randall, p. 161. It appears that the mine workers involved in excavation continued to view themselves as a labour aristocracy. None of the companies were able to do away completley with the *partido* and therefore the workers may have continued to perceive themselves as partners in the the mines. Phillips, pp. 183-185.

[11] Cross, p. 220.

[12] *The Mining Journal*, 26 December 18[illegible].

There were external factors that placed pressure on the profitability of the mining companies. All levels of Mexican government, although originally sympathetic to the interests of the companies, became more concerned with domestic matters. After 1824, all the companies were faced with three levels of government -- federal, state, and municipal -- that did not necessarily agree with each other and had to be dealt with individually, which often meant three different levels of taxation. Often governments would impose "special taxes" which were, in reality, forced loans designed "temporarily to shore up national and local treasuries."[13] In 1835, for example, the Mexican Company included $29,821.70 on its balance sheet which was listed as payments to a government official.[14]

Equally disruptive was the system of *alimentos*, which the owners of the mines exploited to the fullest -- literally siphoning money or silver from the companies. In the same report, the Mexican Company pointed out how the families of Sardentas, Robles and Urrutia had "duly deprived the company of upwards of $172,000."[15] Moreover, when the British companies first arrived they found

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[13] Cross, p. 200.

[14] *The Mining Journal*, 19 September 1835.

[15] *Ibid.*

themselves competing with each other for these contracts -- and the majority of the leases were never even exploited. The Tlalpujahua Company, for example, only worked two mines in its brief history, yet had entered into over eighty contracts for mines.[16]

Labour was an added expense, however, its price remained stable. Like their eighteenth century counterparts, the companies only experienced difficulties when they tried to lower wages and were equally unsuccessful in their efforts. The Bolaños Company's works at Vetagrande were attacked by a mob of 1500 persons in 1828 when Captain Vetch attempted to eliminate the *partido*. As a result,

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[16] Teodoro Flores, *Estudio Geológico-Minero*, (México: 1920), p. 11. The Tlalpujahua company was also manipulated by a system referred to as *Gastos Generales*. It was explained by commissioner Marc Beaufoy to work as such:" "A" represents Castelazo and Co. owners of a large number of our mines. "B" repesents twelve other Mexican mine proprietors. "C" is the Tlalpujahua Mining Co. "C" is about to take possession of the mines and work them, it is found advisable to take the mines of "B" in order to keep out other speculators; but "A" objects to his officers, and Europeans employed in the mines of "B", unless an annual consideration is paid. "B" having no money, borrows of "C" sums amounting to 112,500 pesos a year to pay "A", consequently "C" has no claim upon "A" for the refunding of the peso; but his only chance of being repaid is by working the mines of "B" and the chance of those mines being profitable. Should the 112,500 pesos per year amount to more (after the first year) than the whole expense of European officers and workmen, and management, then it is evident that "A" gets his mines worked for nothing and "C" runs the risk of never getting repaid by "B"." *The Morning Chronicle*, 10 April 1828. It is no small wonder why the the shareholders decided to suspend operations later that year.

buildings and all of the drainage equipment were destroyed. Within a relatively short period, the company recovered to such an extent that the mine yielded a million pesos of silver in the same year.[17] In Vetagrande (where all the major mines were leased and operated by the Bolaños Company), of the 1,560 mining employees working in the district, ninety percent worked for the British interest while taking home 573,733 pesos in direct wages and salaries, while the company spent an additional 265,000 pesos on piece work.[18]

Insofar as the Panic of 1825-1826 is concerned, the companies were faced with an immediate shortage of capital, a direct outcome of the economic crisis. The reality was that none of them had raised one single carga of ore by 1826. As was mentioned above, this certainly related to the various mistakes and problems each company faced when they first arrived in Mexico. This, however, was of little consolation to the investor in Britain. Most investors had little or no understanding of the difficulties faced by the mining companies in Mexico and the time needed to make the investments pay off.

Certainly problems of expenditure, early misjudgements

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[17] Cross, pp. 18-19.

[18] *Ibid*, p. 219.

and the exacerbation of external events plagued all of the companies. Mines continued to be underdeveloped and in need of capital investment by 1825, for they were still operating at a loss; however, the shortage of capital created many problems as early as 1826. Companies wishing to expand and to make their operations more profitable, were unable to do so. The Tlalpujahua Company, for example, needed to call up more capital to undertake an adit for its principle mining works. Unfortunately, the shareholders were unwilling to part with any more of their money, and the company had to suspend its operations in 1828. [19] Even the Real del Monte Company, which had doubled its original capital, was unable to expand its operations after 1828 to a degree which could possibly make the original capital investment pay off.[20]

The effect on the value of shares during the speculative mania was incredible. Real del Monte shares reached a high of £1400 during the height of the mania. Many people and, indeed, Country Banks bought shares and then jumped

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[19] Ward, *Vol. II*, p.495.

[20] The Real del Monte Company had concentrated mainly on the Vizcaína vein. Much of its initial capital was devoted to building adits. It, however, was not able to develop other mines it had in its possession. For example, the San Franciso mine, only briefly exploited by the Real del Monte Co., went on to be one of the richest mines in Mexico. Randall, pp. 100-110.

out of the market once they had shown any sign of decrease. One only needs to recall the instance of the individual who purchased ten shares of Real del Monte stock and sold them for a profit of £400 to £900 before he had paid hardly any deposit.[21] The record of Real del Monte shares parallels the other companies formed for operating in Mexico.

The crisis of December 1825 had a devastating effect on the British economy, forty-three Country Banks falling when the London Bank of Pole, Thornton and Co. of London collapsed. More important to the fortunes of the mining companies with interests in Mexico was that they immediately were faced with a crisis of liquidity and were forced to deal with defaulted shares[22]. Similarly, they experienced problems making calls on their shares and expanding their capitalization because of the public's disdain of Latin American ventures of any sort. *The Times*, remarking on the fact that the whole country had been speculating, stated how "people will see how much was set down as altogether fallacious and untenable."[23] Moreover, companies were subject to attacks from their shareholders as early as

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[21] *The Report of the Select Committee on Joint Stock Companies, 1844*, p. 225.

[22] See *The Morning Chronicle*, 20 July 1826, and 6 September 1826.

[23] *The Times*, 4 February 1825.

January 1825; and even after they had proven themselves to have been operating in a legal manner, the damage was irreparable.[24]

Furthermore, the British merchants in Mexico were equally affected by the economic crisis. Most had depended on Britain for their capital as there was no large pools of capital to be had in Mexico. Many had to suspend operations temporarily for much of 1826 which was a problem for most of the mining companies as they relied upon them for their supplies.[25]

Moreover, a shift in policy on the part of the Mexican government had an effect on the availability of capital for the mining companies operating in Mexico. Lucas Alamán, disappointed about the returns from the mining industry, shifted his attention to textile manufacturing. Alamán had all but forgotten silver mining and focused his efforts on the creation of the *Banco de Avio*, which was to be devoted to the formation of Mexican industry.[26]

Without a source of capital investment, the companies formed for work in Mexico were doomed to fail (which all eventually did in various stages between 1835 and 1850).

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[24] *Ibid*, 9 January 1826.

[25] *The Morning Chronicle*, 19 October 1826.

[26] See Robert Potash.

The only company to give returns to its investors was the Bolaños Company. Bolaños paid 7.3% on full shares in 1830. The following year, the payout amounted to 4.0% and, after two smaller payments were made in 1833 (2.7%) and 1835 (3.3%), the final payment in 1836 consisted of a 6.6% return.[27]

The Mexican mining ventures did not bring the desired returns to investors, it was not for want of effort. Production figures for specific companies prior to 1835 were not available to the writer; however, if one considers the rise in silver production in the state of Zacatecas, it becomes obvious that there was some gain during the years 1826-1835. From 1825-1829 there was an annual average 9.28 million pesos of silver production. From 1830-1834, there was an average annual increase to 11.39 millions of pesos.[28] Considering that the state's principal miners were the Bolanos, United Mexican, and Real del Monte companies, their contribution to the increase must have been significant. Even though some of the companies were unable to bring their mines to their pre-Independence levels they

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[27] Cross, p. 218.

[28] *Ibid*, p. 31.

nevertheless made gains in production.[29] In addition, if one recalls the fact that eight out of ten ventures failed in the eighteenth century within a stable environment, the fact that five companies survived past 1828 is remarkable considering the economic instability of the period. Most were, in fact, meeting their costs by the end of that year.[30]

Furthermore, the contribution of these companies to Mexican mining should neither be overlooked nor neglected. In addition to mining tools, the British companies introduced innovations which were eventually blended with traditional mining mining methods in Mexico. Several former employees of the British companies adopted what they had learned and eventually formed successful mining operations in Mexico. Many of them in fact became prominent Mexican citizens.[31]

Mexico and Mexican mining ventures during the 1820s then, need to be set apart from the rest of Latin America when considering the speculative mania in Britain from 1824 to 1825. The formation of the mining companies depended on

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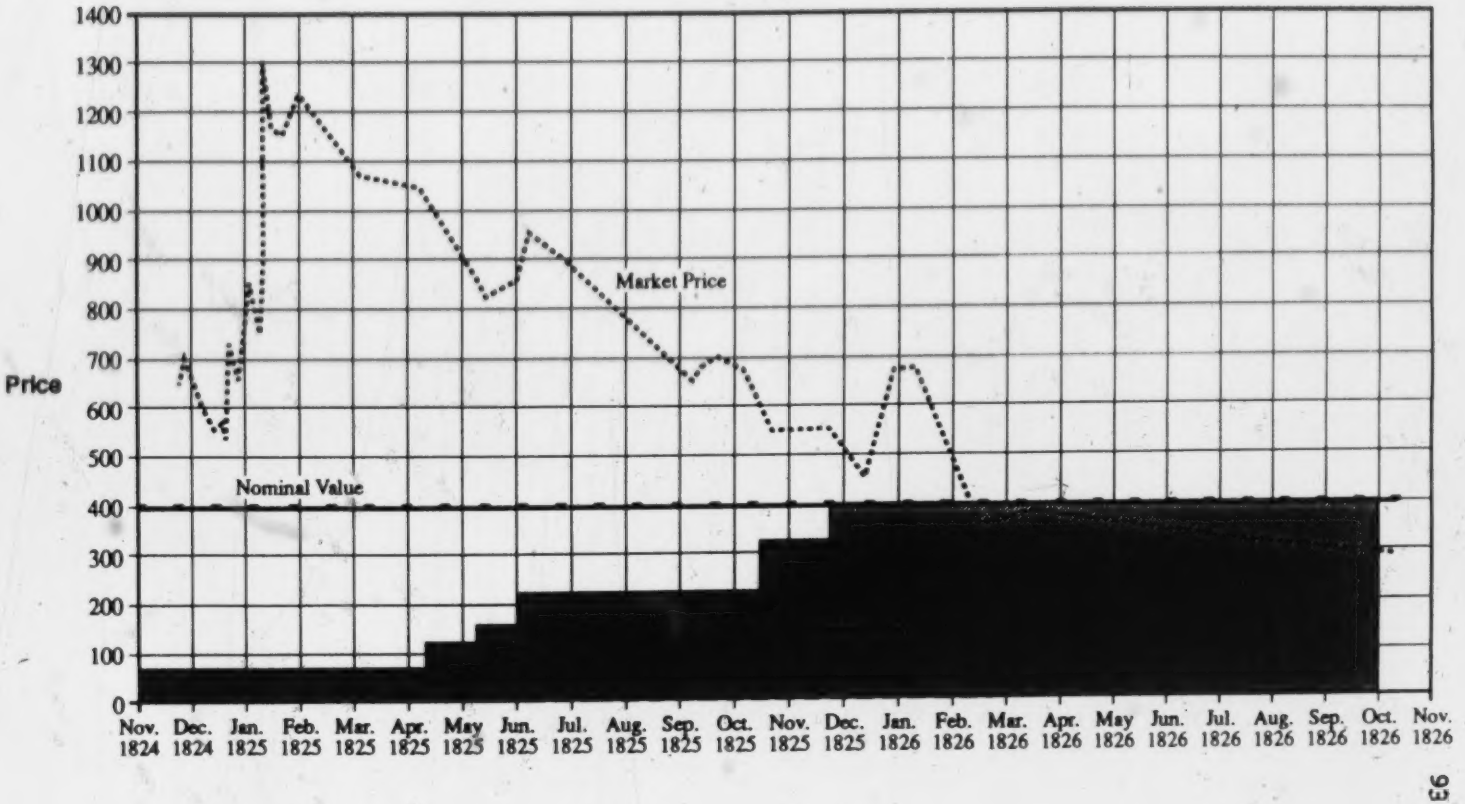
[29] For example, the amount of refined silver produced by the Anglo Mexican Company was 116,329 pesos in 1825. In 1826 it was 343,032 pesos. In 1827 it was 457,010 pesos and by 1828 it reached 572,971 pesos. Ward, Vol. II, p. 529

[30] Ward, Vol. II, pp. 493-564.

[31] Cross, p. 236.

the favourable climate provided by the British economy and both the British and Mexican governments. Certainly, companies were formed that were purely speculative in nature. However, the majority that survived until 1835 appear to be valid initiatives at creating long range returns for British investors.

Figure 1
Real del Monte Shares
September 1824 – October 1826



CONCLUSION

The British mining companies need to be reevaluated in the context of both Latin American and British historiography. If one accepts the central theme of this essay - that the majority of British mining ventures were valid commercial initiatives dedicated to long term returns for investors - it is evident that several questions remain.

While capital influenced the operations of all of the companies, it was not the only reason they faltered. Mexico's geological and geographical idiosyncrasies forced them to rely on existing Mexican technology which eighteenth century enterprises were able to use with greater success. How successful would the British have been if there had been an adequate supply of fuel for the steam engines? Similarly, why were the British unable to abolish the *partido* system of labour payment?

From the standpoint of British historiography, Mexican mining ventures and the nature of investment during the speculative boom and, indeed, throughout the 1820s needs to be reassessed. While it easy to criticize those who formed the companies because of mining's speculative nature, they did eliminate as much risk as possible and realized that their investments were long term. All of the

companies, however, were at the mercy of shareholders who unrealistically expected them to pay dividends immediately which leads one to conclude that the two stages of investment were a determining factor in all of the ventures eventual failure. The difference between perception and reality was magnified as far as the speculative boom and subsequent "mania" were concerned. How many other valid commercial initiatives were affected in the same way?

At the same time British mining ventures need to be reexamined by Mexican historians. The impact of the British companies has been largely underestimated by Mexican historians because these companies did not contribute to the fiscal success of the national governments of Mexico. They did, however, bring massive amounts of capital to mining regions, and continued to contribute to these local economies throughout their existence. Undeniably, more research needs to be done on regional and local levels to determine how their capital infusions affected these regions during the early nineteenth century.

Furthermore, the British capital exports to Mexico during the period need to reevaluated as far as broader historical issues are concerned. Obviously, the British financial system was too underdeveloped to conquer Mexcico during the 1820s. Indeed, it is evident that the British were manipulated by Mexican elite and mine owners to the

detriment of the companies. It is highly likely that the British learned from the mistakes made during the period which affected their future investments in Latin America later in the nineteenth century.

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